

MO Dept of Natural Resources Hazardous Waste Program

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O'BRIEN & GERE ENGINEERS, INC.

WE Wright / William E. Wright, RG God

Hydrogeologist



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**REPORT** 

MAR 0 9 2000 RCAP PROPER

# 1999 Annual Ground Water Compliance Monitoring

Inland Realty Enterprises, L.L.C. Maryville, Missouri

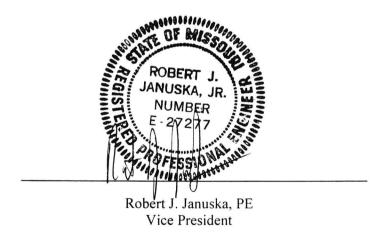
February 2000



## **REPORT**

1999 Annual Ground Water Compliance Monitoring

## Inland Realty Enterprises, L.L.C. Maryville, Missouri



February 2000



12250 Weber Hill Road St. Louis, Missouri 63127

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#### 1. Introduction

The purpose of this report is to fulfill the reporting requirements of Missouri Hazardous Waste Management Facility Post-Closure Permit MOD099238784 (Permit) for the Inland Realty Enterprises, L.L.C. site located in Maryville, Missouri. The Permit application was approved March 1999. The Permit was transferred from Inland Realty Company to Inland Realty Enterprises, L.L.C. on or about November 1, 1999. The second and fourth quarters of 1999 ground water sampling events provide the basis for this report. Ground water samples were collected April 20-23 and October 25-28, 1999.

#### 1.1. Site history summary

From the early 1970s to October 1981, a surface impoundment (lagoon) owned by Nixdorff-Lloyd Chain Company received spent pickling waste from the production of low-carbon steel chains. The surface impoundment was classified by USEPA and Missouri Department of Natural Resources (MDNR) as a treatment, storage, or disposal (TSD) facility. As such, the lagoon was subject to Resource Conservation and Recovery Act (RCRA) regulation. The pickling operation was discontinued and discharges to the lagoon ceased in October 1981. In November 1984, the lagoon's liquid contents were neutralized and decanted.

The lagoon closure activities began in late 1986 to early 1987 by using lime to stabilize the sludge, placing the sludge at the west end of the former lagoon, and capping the sludge. In 1989, a Notice of Violation (NOV) prompted a decision to cap the entire former lagoon. The lagoon cap was completed in April 1990.

In December 1993, Nixdorff-Krein Industries, parent company of Nixdorff-Lloyd, received concurrent requests from USEPA and MDNR for a Part B post-closure permit application for the former lagoon, which was prepared and submitted to both agencies in May 1994. Signed approval of the post-closure permit application was received in March 1999.

#### 1.2. Monitoring system

Thirteen wells and four piezometers form the ground water monitoring system at the Inland Realty site. The well locations and present identification are shown on Figure 1. Four wells (GMW #1 through GMW #4) were originally installed in 1982. GMW #1 was the farthest upgradient well and was located northeast of the former impoundment area. This well was located on property owned by the Missouri Department of Transportation (MODOT), and a large pile of road salt was formerly stored near the well. Thereafter, eight additional wells (GMWs 2D, 4D, 5S, 5D, 6S, 6D, 7, and 8) were installed. Upgradient background wells GMW #5S and GMW #5D were installed as replacement wells, and GMW #1 was no longer sampled and was closed December 1991.

Two wells (GMW #3S and GMW #3D) were installed approximately 125 to 150 feet downgradient of the former lagoon area. Additionally, four piezometers (PZ-1 through PZ-4) were installed to monitor ground water elevations. In 1990, GMW #9 was installed to replace GMW #8 which had been damaged. GMW #1 and GMW #8 were abandoned in 1991.

Sampling of ground water at the site began in or before 1984, and was performed on a quarterly basis from 1990 through 1998. The first Annual Compliance Monitoring Report under the Permit was submitted June 30, 1999. Under agreement with MDNR, per a letter of October 30, 1998 to Christine Kump of MDNR from Jim Myers of O'Brien & Gere, three semi-annual sampling events remain before Inland Realty may petition to modify or terminate the Permit (Section II.C. of Permit).

#### 1.3. Historical ground water sampling

During 1989, the ground water monitoring network activities were in the detection phase of closure activities. Because the results of monitoring well GMW #4 triggered a statistical increase in several analytical parameters, verified by additional ground water sampling and analyses, a ground water quality assessment plan was prepared and submitted to MDNR. Closure activities reverted to the assessment phase. Between the first quarter 1990 through the fourth quarter 1998, the ground water monitoring system has been sampled quarterly.

From 1989 through second quarter 1991, statistical analyses were performed on the laboratory analytical results and field sampling parameters. Starting with third quarter 1991, following communication with MDNR, statistical analyses were no longer performed. To replace the statistical analyses, trend graphs of key parameters and key wells

were developed as part of the Annual Ground Water Report. These revisions were in the November 1991 Revised Ground Water Assessment Monitoring Plan and Sampling and Analysis Plan (SAP) which was submitted to MDNR. Revisions were based on correspondence between MDNR and O'Brien & Gere, and the requirements of the SAP were mutually agreed upon.

In addition to a modification of analytical data evaluation, three of the monitoring wells, GMW #6S, GMW #6D and GMW #7, were eliminated from quarterly sampling. The sampling frequency of these wells was decreased to annually and was scheduled to be performed during the second calendar quarter of the year. The November 1991 SAP was further revised in July 1993 and September 1997.

#### 1.4. Historical analytical parameters

Ground water samples collected from GMW #1 through GMW #4 in 1984 were analyzed for RCRA ground water quality parameters. The analyses indicated a statistically significant increase in RCRA parameters. downgradient of the former lagoon. Additional monitoring wells were installed, and analytical parameters were revised in 1985 to include pH, specific conductivity, fluoride, nitrate, chloride, dissolved metals (lead, zinc, iron, and chromium), sodium, sulfates, total organic carbon, total organic halides, and volatile halogenated organics. parameter list was expanded to include dissolved mercury in 1987 and cyanide in 1988. In February 1990, a revised sampling plan was approved by MDNR. The 1990 sampling plan analytical parameters were cadmium, chromium, lead, mercury, nickel, zinc, cyanide, total organic carbon, sulfates, pH, and specific conductivity. The metals analyses were for both total and dissolved constituents. The sampling plan and parameter listing were revised in the Fall of 1991 at the request of MDNR. The sampling frequency of GMWs 6S, 6D, and 7 was changed to annually, and the requirement for dissolved metals analyses was discontinued. The 1991 revised analytical parameters were cadmium, chromium, lead, iron, mercury, manganese, nickel, zinc, cyanide, sulfates, pH, specific conductivity, and temperature. In 1993, the analytical method for mercury was changed to Method 7470. In 1998, the method detection limits were lowered to 2 parts per billion (ppb) for lead and to 5 ppb for cyanide.

#### 2. Sampling and analyses

#### 2.1. Well sampling procedure

During semi-annual sampling events, ground water monitoring well sampling procedures set forth in the Ground Water Sampling and Analysis Plan (approved in March 1999) were followed. GMW #6S, GMW #6D, and GMW #7 are sampled annually. Following is a description of these procedures.

Before the wells were purged, the water level elevations were recorded. In addition, the pH and conductivity meter was calibrated according to the manufacturer's specifications prior to sampling at each well. Using the length of the water column, the quantity of water needed to remove three well volumes was calculated. Dedicated bailers with new lengths of polypropylene rope were used to remove at least three well volumes of ground water from wells that exhibited sufficient recharge. For both sampling events, GMW #2S and GMW #4S did not exhibit sufficient recharge to purge three well volumes. pH, specific conductivity, and temperature measurements were collected from the initial bailer of ground water and after removing each well volume. After consistent pH and specific conductivity readings were achieved, a set of ground water samples for laboratory analyses was collected, preserved with analytespecific acids (where necessary), and cooled with ice in coolers. Ground water samples were delivered to the laboratory by overnight courier. Laboratory samples were analyzed by American Technical and Analytical Services, Inc. (ATAS) of St. Louis, Missouri. One duplicate ground water sample was analyzed by O'Brien & Gere Laboratories, Inc. of Syracuse, New York. Purge water was discharged to the Laclede Chain pretreatment system. The quantities of ground water purged from the wells are shown on the ground water sampling field logs (Appendix A). In April 1999, 294.5 gallons were purged from the monitoring wells, and in October 1999, 124 gallons were purged.

During the April 1999 sampling event, the depths of the wells below top of casing were measured to evaluate screen occlusion. Table 2-1, below, summarizes installed well depths, April 1999 measured well depths, and screen lengths. As indicated in Table 2-1, no well screen was occluded 5% or more. The difference in the depth measurement for 3D may be attributable to a mis-measurement when installed as the well depth was measured at 37.24 ft during the October 1999 sampling event.

 Table 2-1
 Monitoring well total depth measurements

Location ID	Total well depth (installed)	Total well depth April 1999	Screen length (ft)
2S	21.75	21.85	10
2D	32.06	32.11	5
3	18.50	18.61	10
3S	23.61	23.61	10
3D	36.66	37.25	10
4S	20.48	20.37	10
4D	37.09	37.08	5
5S	23.83	23.83	10
5D	37.77	37.77	5
6S	21.55	21.69	10
6D	28.65	28.65	10
7	27.87	27.92	15
9	29.97	30.03	15
Source: O'Brien &	Gere Engineers, Inc		

#### 2.2. Analytical results

Tables 2-2 and 2-3 summarize the laboratory analytical results from the April and October 1999 sampling events. Laboratory analytical reports may be found in Appendix B.

 Table 2-2 Ground water analytical results – April 1999

		Post-closure					
Parameter	Units	2\$	2D	3	3 <b>S</b>	3D	permit ground water protection standards
Cadmium-Total	mg/L	<0.005	<0.005	0.005	<0.005	<0.005	0.12
Chromium-Total	mg/L	<0.005	< 0.005	< 0.005	< 0.005	< 0.005	NE
Chromium-Hexavalent	mg/L	<0.05	< 0.05	<0.05	< 0.05	<0.01	0.24
Chromium-Trivalent	mg/L	NE	NE	NE	NE	NE	49
Lead-Total	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	3
Manganese-Total	mg/L	0.511	0.576	1.06	0.270	0.655	114
Mercury-Total	mg/L	<0.0002	0.0002	<0.0002	<0.0002	<0.0002	0.37
Nickel-Total	mg/L	0.007	< 0.005	0.005	0.008	< 0.005	10
Zinc-Total	mg/L	0.010	0.011	0.018	0.010	0.011	1,175
Cyanide-Total	mg/L	0.044	<0.005	0.019	0.066	<0.005	40
рН	S.U.	6.53	6.8	6.7	6.5	6.4	N/A
Specific Conductivity	micromhos/cm	1,436	945	987	1,107	881	N/A
Temperature	°C	13.9	11.4	11.2	9.9	11.6	N/A

N/A - Not applicable

Source: O'Brien & Gere Engineers, Inc.

 Table 2-2
 Ground water analytical results – April 1999 (continued)

			nitoring w	ells	Post-closure		
Parameter	Units	3DA <sup>1</sup>	<b>4</b> S	4D	5S	5D	permit ground water protection standards
Cadmium-Total Chromium-Total Chromium-Hexavalent Chromium-Trivalent Lead-Total Manganese-Total Mercury-Total Nickel-Total Zinc-Total Cyanide-Total	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	<0.005 0.006 <0.05 NE <0.002 0.61 <0.0002 <0.005 0.02 <0.005	0.009 <0.005 <0.05 NE <0.002 39.4 <0.0002 0.688 1.85 0.014	<0.005 <0.005 <0.05 NE <0.002 1.35 <0.0002 <0.005 0.016 <0.005	<0.005 <0.005 <0.05 NE <0.002 0.303 <0.0002 0.015 0.015 <0.005	<0.005 <0.005 <0.05 NE <0.002 0.801 <0.0002 <0.005 0.010 <0.005	0.12 NE 0.24 49 3 114 0.37 10 1,175
рН	S.U.	6.4	6.1	6.5	6.2	6.88	N/A
Specific Conductivity	micromhos/cm	881	1,987	954	1,281	1,240	N/A
Temperature	_ °C	11.6	12.2	13.2	10.6	14	N/A

<sup>1</sup>Duplicate of 3D

NE – Not estimated (see section 2.3 for explanation) N/A – Not applicable

Source: O'Brien & Gere Engineers, Inc.

 Table 2-2 Ground water analytical results – April 1999 (continued)

		Monitoring wells						
Parameter	Units	6S	6D	7	9	10²	permit ground water protection standards	
Cadmium-Total Chromium-Total Chromium-Hexavalent Chromium-Trivalent Lead-Total Manganese-Total Mercury-Total Nickel-Total Zinc-Total Cyanide-Total	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	<0.005 <0.005 <0.05 NE <0.002 0.102 0.0009 0.007 0.016 <0.005	<0.005 <0.005 <0.05 NE <0.002 0.144 <0.0002 <0.005 <0.010 <0.005	<0.005 0.005 <0.05 NE <0.002 0.219 <0.0002 0.009 0.024 <0.005	<0.005 0.007 <0.05 NE <0.002 0.774 <0.0002 <0.005 0.010 <0.005	<0.005 <0.005 <0.05 NE <0.002 <0.005 <0.0002 <0.005 <0.010 <0.005	0.12 NE 0.24 49 3 114 0.37 10 1,175 40	
рН	S.U.	6.8	7.2	6.7	6.4		N/A	
Specific Conductivity	micromhos/cm	466	473	343	861		N/A	
Temperature	_ °C	12.1	12.8	11.6	13.5		N/A	

NE - Not estimated (see section 2.3 for explanation)

N/A - Not applicable

Source: O'Brien & Gere Engineers, Inc.

Table 2-3 Ground water analytical results - October 1999

				Post-closure			
Parameter	Units	28	2D	3	3\$	3D	permit ground water protection standards
Cadmium-Total Chromium-Total Chromium-Hexavalent Chromium-Trivalent Lead-Total Manganese-Total Mercury-Total Nickel-Total Zinc-Total Cyanide-Total	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	<0.005 0.005 <0.005 NE <0.002 2.39 <0.0002 <0.005 0.050 <0.005	<0.005 0.005 <0.005 NE <0.002 0.587 <0.0002 <0.005 0.031 <0.005	<0.006 <0.005 <0.005 NE <0.002 1.12 <0.0002 <0.005 0.013 <0.005	<0.005 <0.005 <0.005 NE <0.002 0.673 <0.0002 <0.005 0.015 0.028	<0.005 <0.005 <0.005 NE <0.002 0.620 <0.0002 <0.005 <0.010	0.12 NE 0.24 49 3 114 0.37 10 1,175 40
рН	S.U.	6.28	6.17	6.25	6.13	6.14	N/A
Specific Conductivity	micromhos/cm	1,568	795	1,418	1,263	1,157	N/A
Temperature	_ °F	56.8	54.1	58.8	59.1	58.5	N/A

NE - Not estimated (see section 2.3 for explanation)

N/A - Not applicable

Source: O'Brien & Gere Engineers, Inc.

O'Brien & Gere Engineers, Inc.

Final: February 29, 2000

 Table 2-3 Ground water analytical results – October 1999 (continued)

			Post-closure				
Parameter	Units	3DA <sup>1</sup>	<b>4</b> S	4D	5S	5D	permit ground water protection standards
Cadmium-Total Chromium-Total Chromium-Hexavalent Chromium-Trivalent Lead-Total Manganese-Total Mercury-Total Nickel-Total Zinc-Total Cyanide-Total	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	<0.005 0.006 <0.01 NE <0.002 0.60 <0.0002 <0.005 0.03 <0.005	0.009 0.009 0.209 NE <0.002 1.15 <0.0002 <0.005 0.012 0.011	<0.005 <0.005 <0.005 NE <0.002 1.02 <0.0002 0.022 0.021 <0.005	<0.005 <0.005 <0.005 NE <0.002 1.04 <0.0002 0.023 0.021 0.005	<0.005 <0.005 <0.005 NE <0.002 0.798 <0.0002 <0.005 0.013 0.005	0.12 NE 0.24 49 3 114 0.37 10 1,175 40
рН	S.U.	6.14	6.47	6.72	6.45	7.45	N/A
Specific Conductivity	micromhos/cm	1,157	3,420	1,698	1,987	1,140	N/A
Temperature	°F	58.5	64.4	63.4	57.2	52.4	N/A

<sup>&</sup>lt;sup>1</sup>Duplicate of 3D NE – Not estimated (see section 2.3 for explanation) N/A – Not applicable Source: O'Brien & Gere Engineers, Inc.

**Table 2-3** *Ground water analytical results – October 1999 (continued)* 

			Post-closure				
Parameter	Units	6S	6D	7	9	10²	permit ground water protection standards
Cadmium-Total Chromium-Total Chromium-Hexavalent Chromium-Trivalent Lead-Total Manganese-Total Mercury-Total Nickel-Total Zinc-Total Cyanide-Total	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	NS NS NS NS NS NS NS NS	NS NS NS NS NS NS NS NS	NS NS NS NS NS NS NS NS NS	<0.005 0.007 0.021J NE <0.002 1.53 <0.0002 <0.005 0.010 <0.005	<0.005 <0.005 <0.005 NE <0.002 <0.005 <0.0002 <0.005 <0.010 <0.005	0.12 NE 0.24 49 3 114 0.37 10 1,175 40
рН	S.U.	NS	NS	NS	6.68		N/A
Specific Conductivity	micromhos/cm	NS	NS	NS	1,132		N/A
Temperature	_ °F	NS	NS	NS	64.2		N/A

<sup>&</sup>lt;sup>2</sup>Sample of distilled water

### 2.3. Comparison to post-closure permit ground water protection standards

The ground water laboratory analytical results obtained from the second semi-annual sampling event have been compared to the post-closure permit ground water protection standards (GPS). These standards were developed as part of an exposure assessment that was performed for the site and are included in the post-closure permit.

Reported cadmium concentrations ranged from less than 0.005 mg/L (GMW #s 2S, 2D, 3S, 3D, 4D, 5S, 5D, 6S, 6D, 7, and 9) to 0.009 mg/L (GMW #4S). The highest reported cadmium concentration was approximately two orders of magnitude lower than the ground water protection standard of 0.12 mg/L. Reported hexavalent chromium concentrations were less than 0.005 mg/L for GMW #s 2S, 2D, 3, 3S, 3D, 4D, 5S, and 5D. The detection limit for hexavalent chromium for April 1999 is one order of magnitude higher than that recommended in the closure permit due to matrix interference. The detection limit identified in the closure permit was attained for October 1999. A review

NS - Not sampled

J - Estimated value

NE – Not estimated (see section 2.3 for explanation)

N/A - Not applicable

Source: O'Brien & Gere Engineers, Inc.

of the five SW846 methodologies for hexavalent chromium analyses and discussions with both ATAS and O'Brien & Gere Laboratories personnel indicate that a method detection limit of 0.005 mg/L is not easily attainable due to interferences from chlorides and sulfates in the ground water. Also, the detection limit for total chromium is 0.005 mg/L; therefore, the reported concentrations for total chromium are more accurate and will be more consistent. For these reasons, the hexavalent chromium concentration of 0.209 mg/L for GMW #4S and 0.021J for GMW #9 may be inaccurate as total chromium was reported at <0.005 mg/L for GMW #4S and at 0.007 mg/L for GMW #9. chromium is equal to hexavalent chromium plus trivalent chromium, it would not be possible to have an accurate hexavalent chromium value of 0.209 mg/L when the total chromium concentration is <0.005 mg/L and 0.021J mg/L when total is 0.007 mg/L. However, even if the 0.209 mg/L hexavalent chromium value for GMW #4S were accurate, it is lower than the ground water protection standard of 0.24 mg/L. GMW #9 is one order of magnitude lower.

Based on the higher method detection limit for hexavalent chromium than for total chromium, the concentration of trivalent chromium was not calculated. However, the concentrations of trivalent chromium must be less than the concentrations of total chromium, all of which are reported as at least three orders of magnitude less than the 49 mg/L trivalent chromium ground water protection standard.

Lead was not reported above the method detection limit of 0.002 mg/L, which is approximately three orders of magnitude less than the ground water protection standard of 3 mg/L. Mercury was reported at 0.0009 mg/L, just above the method detection limit, which is approximately three orders of magnitude less than the ground water protection standard of 0.27 mg/L. Reported manganese concentrations ranged from 0.219 mg/L to 39.4 mg/L. The highest reported manganese concentration is approximately one-third of the ground water protection standard of 114 mg/L. Reported nickel concentrations ranged from less than 0.005 mg/L to a high of 0.688 mg/L. The highest reported nickel concentration is approximately 2 orders of magnitude less than the ground water protection standard of 10 mg/L. Reported cyanide concentrations ranged from less than 0.005 mg/L to 0.066 mg/L. The highest reported cyanide concentration is approximately 3 orders of magnitude less than the ground water protection standard of 40 mg/L. Reported zinc concentrations ranged from less than 0.010 mg/L to 1.85 mg/L. The highest reported zinc concentration is approximately 3 orders of magnitude less than the ground water protection standard of 1,175 mg/L.

#### 2.4. Isoconcentration maps

The laboratory reported concentrations for cadmium, cyanide, manganese, and nickel were used to construct isoconcentration maps

(Figures 2, 3, 4, and 5, respectively) for the shallow wells. Manganese concentrations were used to construct an isoconcentration map (Figure 6) for the deep wells. The reported laboratory values used were the higher of the reported values for 1999. Zinc data showed little significant variability except for second quarter at GMW #4S and was not used to construct isoconcentration maps. The remainder of the data were either at or below method detection limits (lead and mercury) or only had one or two data points (chromium). The isoconcentration maps and the tabulated data indicate that, in general, the highest concentrations (while still below ground water protection standards) tend to be in an area to the east and southeast of the former lagoon approximately bounded by a line through GMWs #2S, #3S, #3D, #3, and #9. Also, concentrations tend to reduce with depth, as supported by cadmium, nickel, and cyanide concentrations from the tabulated data.

#### 2.5. Trend graphs

To replace the statistical analyses that were previously conducted on the quarterly ground water laboratory and field results, concentration trend graphs were developed, as suggested in MDNR's September 20, 1991 letter, to illustrate the potential concentration fluctuations of key parameters and key monitoring wells. This is the ninth ground water report to include trend graphs. Copies of the resultant graphs are shown in Appendix C (1995-1999) and Appendix D (1987-1995). The trend graphs illustrate the quarterly results of pH and total chromium, cyanide, manganese, nickel, sulfates, and zinc. Seven of the graphs illustrate the concentrations for the shallow wells - upgradient GMW #5S and downgradient wells GMW #4S and GMW #6S. The remaining seven graphs illustrate concentrations for the deep wells - upgradient GMW #5D and downgradient wells GMW #4D, GMW #6D, and GMW #9. The data assimilates first quarter 1987 through October 1999 data. During 1999, no adverse trends were indicated by the reported analyses. Trend graphs were assembled as time (horizontal axis) versus chemical constituent concentration (vertical axis). Data which were not shown were the fourth quarter 1987 data for cyanide in which the detection limits were much higher than the rest of the results and, therefore, would skew the range of results. In addition, prior to third quarter 1991, analytical results for metals were for ground water samples that had been field-filtered and, therefore, represented dissolved metal concentrations. After third quarter 1991, dissolved metals analyses were dropped, and total metals analyses were the only metals constituents monitored.

The plotting of the trend graphs suggests that a sampling or analytical anomaly occurred for GMW #5S and GMW #5D samples for metals during second quarter 1988. These results are illustrated on the trend graph as spikes (Appendix D). This was observed in chromium and

nickel concentrations in the shallow well samples and chromium, nickel, and zinc concentrations in the deep well samples.

With regard to the shallow well trend graphs, chromium, cyanide, manganese, nickel, zinc, and sulfates concentrations have generally been higher in downgradient GMW #4S than for GMW #5S (background well) and GMW #6S. The pH of GMW #4S has generally been observed lower than for GMW #5S and GMW #6S.

With respect to the deep wells, the chromium and nickel concentrations of GMW #9 have generally been higher than the chromium and nickel concentrations of GMW #5D (background well), GMW #6D, and GMW #4D. Manganese, sulfates, and zinc have generally been higher in either GMW #4D or GMW #9 than in GMW #5D and GMW #6D. The pH of the observed wells has shown the highest degree of variability. No one well is shown to be consistently higher or lower in pH values than the other wells. Cyanide has remained below detection limits since the second quarter 1991.

Trend graphs will be updated for subsequent annual ground water reports for the site by adding the ground water sample laboratory analytical data from the additional corresponding sampling events.

#### 3. Ground water level data and calculations

#### 3.1. Ground water elevations

Figures 7 through 10 of this report are potentiometric ground water surface elevation maps prepared from the 1999 ground water elevation data for the wells and include a table summarizing the ground water elevation measurements obtained during 1999 semi-annual sampling at the wells. In general, the ground water flow directions have fluctuated little from quarter to quarter. As in the past, the observed historical direction of the ground water flow is generally in an easterly to southeasterly direction, toward the One Hundred and Two River.

A comparison of 1998 ground water elevations to 1999 ground water elevations on a quarter-to-quarter basis (*i.e.*, second quarter 1998 compared to second quarter 1999, etc.) indicates ground water elevations for 1999 were lower than in 1998. Second quarter 1999 ground water elevations were as much as 2.25 ft lower than in second quarter 1998. Fourth quarter 1999 ground water elevations were as much as 3.55 ft lower than in fourth quarter 1998. Ground water elevations were as much a 5.17 ft lower in the fourth quarter 1999 as in the second quarter 1999. See tables 3-1 and 3-2, below.

Table 3-1 Shallow well ground water elevations, 1998 and 1999.

	Seco	nd quarter	Fourth quarter	
Well	1998	1999	1998	1999
GMW #2S	993.56	992.82	989.70	988.43
GMW #3	993.75	993.29	991.87	989.73
GMW #3S	992.77	992.27	989.70	988.04
GMW #4S	994.62	993.85	992.16	989.83
GMW #5S	997.26	997.64	995.93	992.98
GMW #6S	988.05	987.53	986.52	984.31
PZ-1	995.54	995.26	993.14	990.09
PZ-2	995.96	995.74	994.38	990.83
PZ-3	996.25	995.90	994.93	994.01
PZ-4	996.28	994.03	993.99	992.03

Final: February 29, 2000

Table 3-2 Deep well ground water elevations, 1998 and 1999.

	Seco	nd quarter	Fourth quarter	
Well	1998	1999	1998	1999
GMW #2D	993.35	992.95	991.62	989.51
GMW #3D	992.02	991.54	990.00	988.28
GMW #4D	993.73	993.40	992.13	989.83
GMW #5D	995.04	994.91	993.47	990.76
GMW #6D	987.98	987.49	986.53	984.27
GMW #7	989.81	989.29	987.41	984.30
GMW #9	993.43	993.09	991.85	989.61

Source: O'Brien & Gere Engineers, Inc.

#### 3.2. Horizontal ground water migration

The ground water flow velocity has been estimated for the shallow and deep well zones using a modified Darcy's Law expression to calculate lineal velocity:

$$V = \underbrace{Ki}_{7.48 \text{ Sy}}$$

Where

V = average lineal velocity, ft/day

K = hydraulic conductivity, gpd/ft<sup>2</sup> i = average hydraulic gradient, ft/ft

Sy = estimated effective porosity

Table 3-3, site hydraulic gradients, and Table 3-4, hydraulic conductivities, were used to estimate the ground water velocities for the upper silt zone and the lower sand zone. A specific yield, Sy (or effective porosity) of 0.18 was used for the silt zone and an Sy of 0.25 was used for the sand zone. The hydraulic gradient was calculated using the differences in hydraulic head between wells GMW #5S and GMW #6S with a horizontal distance between them of 1395 ft for the shallow wells. GMW #5D and GMW #6D, with a horizontal distance between them of 1395 ft, was used to calculate the hydraulic gradients for the deeper wells. A hydraulic gradient was calculated for each semi-annual sampling event, then those two numbers were averaged.

 Table 3-3. Site hydraulic gradients (1).

Quarter	5S (msl elev.)	6S (msl elev.)	5S-6S	l (ft/ft)	
2 4	997.64 992.98	987.53 984.31	10.11 8.67	0.0072 0.0062	
Average (	Average gradient (I <sub>S</sub> ) = 0.0067 ft/ft				
Deep wells (d = 1395 ft)					
Deep wel	lls (d = 1395 ft)				
Deep wel	lls (d = 1395 ft) 5D (msl elev.)	6D (msl elev.)	5D-6D	l (ft/ft)	
•	,	<b>6D (msl elev.)</b> 987.49 984.27	<b>5D-6D</b> 7.42 6.49	I (ft/ft) 0.0053 0.0047	

**Table 3-4.** *Hydraulic conductivities (K)*.

Shallow wells	K (gpd/ft²)	Deep wells	K (gpd/ft²)
2S 3 4S 5S 6S	5.1 8.16 1.64 1.95 14.5	2D 4D 5D 6D 7	9.2 5.6 10.1 47.0 7.4
Low K = 1 High K = Average F	14.5	Low K High K Averag	0.0

V = <u>KI</u>
7.48 (Sy)

Sy for silt - 0.18.

Sy for sand = 0.25

Upper zone is generally silts.

Lower zone is generally sands and some gravel mix.

Source: O'Brien & Gere Engineers, Inc.

Hydraulic conductivities were based upon *in situ* permeability tests performed in November 1985. Table 3-4 summarizes the hydraulic conductivities for the shallow (silt zone) wells, the deeper (sand zone) wells, and the low, high, and average values for each respective zone.

Table 3-5 summarizes the calculated ground water flow velocities for the shallow zone (silt) and deeper zone (sand). The shallow zone has an approximately 50% lower flow velocity than the sand zone when comparing low to low and high to high. However, when averaged, the flow velocity within the silt zone is approximately 85% of that of the sand zone. This tends to confirm the variability in the makeup of the silt

and sand and the variability of the completion depths of the monitoring wells.

Table 3-5. Ground water velocities.

	Silt zone	Sands and gravel zone
Low	2.98 ft/yr	5.15 ft/yr
High	26.34 ft/yr	45.87 ft/yr
Average	11.39 ft/yr	15.47 ft/yr

Source: O'Brien & Gere Engineers, Inc.

#### 3.3. Vertical ground water migration

Table 3-6 presents the 1999 ground water elevation data for the nested well pairs and the difference in elevation between shallow and corresponding deep monitoring wells.

If the ground water elevation in the deep well is higher than in the corresponding shallow well, the hydraulic head in the deep well is higher than in the shallow well. Hence, an upward flow potential exists. Conversely, if the ground water elevation in the shallow well is higher than in the corresponding deep well, the hydraulic head in the shallow well is higher than in the deep well. In this case, a downward flow potential exists.

GMW #2S/#2D had an upward flow potential during the second and fourth quarters of 1999. GMW #3S/3D had a downward flow potential during the second quarter of 1999 and an upward flow potential during the fourth quarter 1999. GMW #4S/4D had a downward flow potential during the second quarter 1999 and a neutral potential during the fourth quarter 1999. GMW #5S/5D had downward flow potentials for the second and fourth quarters of 1999. GMW #6S/6D had a downward vertical flow potential for the second and fourth quarters 1999.

Table 3-6 Vertical ground water flow potential; 1999 elevation data.

Shallow wells	Ground water elevation	Deep wells	Ground water elevation	Shallow-deep elevation	
2S	992.82	2D	992.95	-0.13	<b>↑</b>
	988.43		989.51	-1.08	$\downarrow$
3S	992.27	3D	991.54	0.73	$\downarrow$
	988.04		988.28	-1.79	$\uparrow$
4S	993.85	4D	993.40	0.45	$\downarrow$
	989.83		989.83	0.0	
5S	997.64	5D	994.91	2.73	$\downarrow$
	992.98		990.76	2.22	$\downarrow$
6S	987.53	6D	987.49	0.04	$\downarrow$
	984.31		984.27	0.04	↓ .

↑↓ - direction of apparent relative vertical flow component potential Source: O'Brien & Gere Engineers, Inc.

#### 4. Conclusions

Based on the 1999 quarterly field activities, ground water elevation data, laboratory analytical results, and well inspection activities performed, the following conclusions are made:

- Regional and site ground water flow direction remains primarily in an east to southeast direction toward the One Hundred Two River.
- Except as noted for hexavalent chromium, analytical results and their respective quality assurance/quality control measures did not indicate the existence of anomalies or inconsistencies that would affect the assessment of the analytical results.
- Analytical data indicate no well had reported concentrations above the post-closure permit ground water protection standards.
- Observations were made of the ground water monitoring wells' surface condition as part of the quarterly sampling activities. During 1999, the ground water monitoring wells' seals and integrity remained intact.
- Reviewing existing 1999 data, reports, and corresponding field activities, it appears the current ground water monitoring system continues to adequately define the ground water quality and conditions surrounding the former surface impoundment.
- 1999 analytical data indicate no adverse change in ground water 6. conditions.

19



LLOLIND

GROUND WATER MONITORING WELL

PIEZOMETER

INLAND REALTY COMPANY MARYVILLE, MISSOURI

GROUND WATER MONITORING WELL LOCATION PLAN

5/4/99 3050.005-109F





GROUND WATER MONITORING WELL

D NONDETECT

0.01 REPORTED CONCENTRATION MG/L

INLAND REALITY COMPANY MARYVILLE, MISSOURI

CADMIUM ISOCONCENTRATION MAP SHALLOW WELLS

> 3050.005-208 FEBRUARY, 2000



FIGURE 3



## <u>LEGEND</u>

GROUND WATER MONITORING WELL

ID NONDETECT

0.01 REPORTED CONCENTRATION MG/L

INLAND REALTY COMPANY MARYVILLE, MISSOURI'

CYANIDE
ISOCONCENTRATION MAP
SHALLOW WELLS

3050.005-209 FEBRUARY, 2000



FIGURE 4



## **LEGEND**

GROUND WATER MONITORING WELL

D NONDETECT

 $\sim$  0.5  $\sim$  REPORTED CONCENTRATION MG/L

INLAND REALTY COMPANY MARYVILLE, MISSOURI

MANGANESE ISOCONCENTRATION MAP SHALLOW WELLS

> 3050.005.210 FEBRUARY, 2000





GROUND WATER MONITORING WELL

D NONDETECT

- 0.1 - REPORTED CONCENTRATION MG/L

INLAND REALTY COMPANY MARYVILLE, MISSOURI

NICKEL ISOCONCENTRATION MAP SHALLOW WELLS

> 3050.005-212 FEBRUARY, 2000





GROUND WATER MONITORING WELL

D NONDETECT

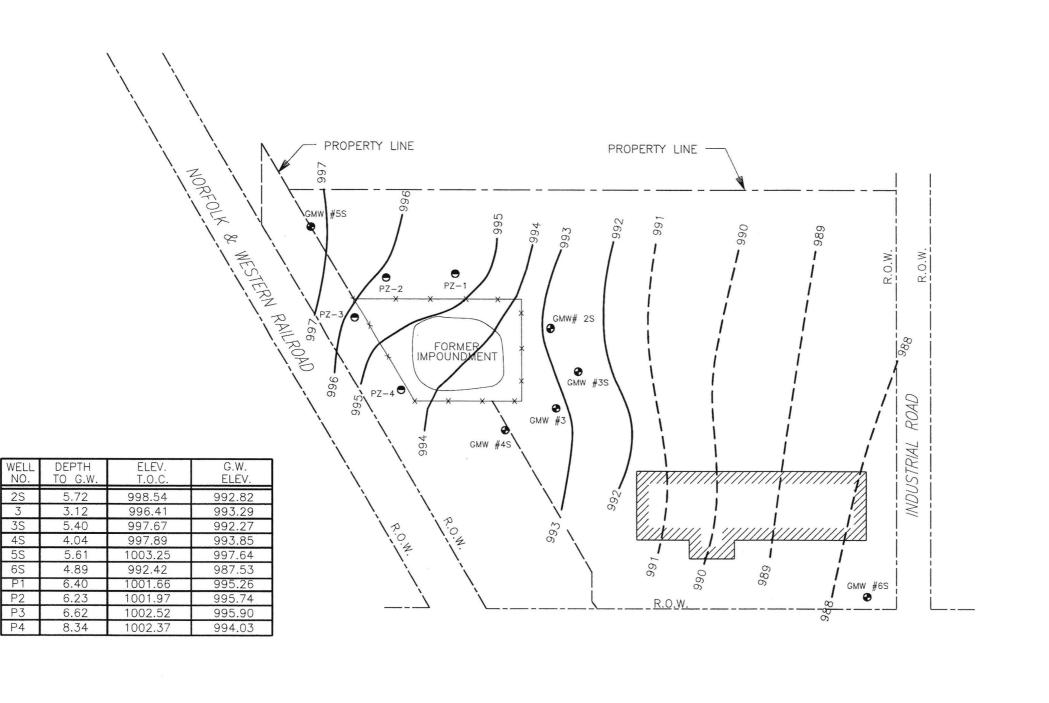
O.5 → REPORTED CONCENTRATION MG/L

INLAND REALTY COMPANY MARYVILLE, MISSOURI

MANGANESE ISOCONCENTRATION MAP DEEP WELLS

> 3050.005-211 FEBRUARY, 2000







INFERRED GROUND WATER ELEVATION CONTOUR LINE

GROUND WATER MONITORING WELL

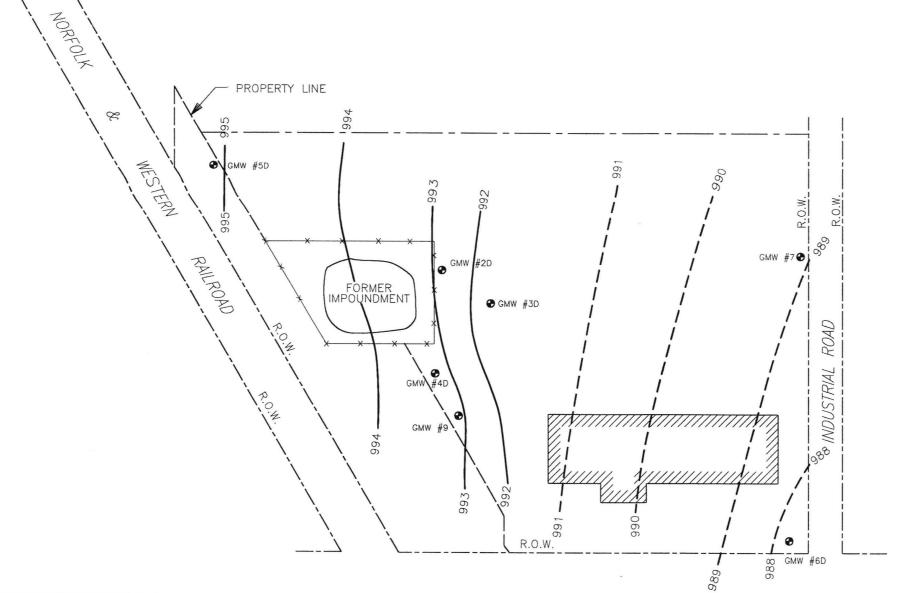
PIEZOMETER

INLAND REALTY COMPANY MARYVILLE, MISSOURI SECOND QUARTER 1999 SHALLOW WELLS

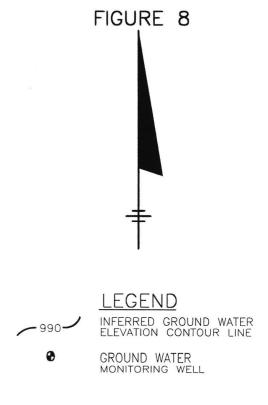
## **GROUND WATER ELEVATION** CONTOUR MAP

3050.005-202 FEBRUARY, 2000





WELL NO.	DEPTH TO G.W.	ELEV. T.O.C.	G.W. ELEV.
2D	5.47	998.42	992.95
3D	6.17	997.71	991.54
4D	5.85	999.25	993.40
5D	8.34	1003.25	994.91
6D	4.98	992.47	987.49
7	5.13	994.42	989.29
9	4.25	997.34	993.09



INLAND REALTY COMPANY MARYVILLE, MISSOURI SECOND QUARTER 1999 DEEP WELLS

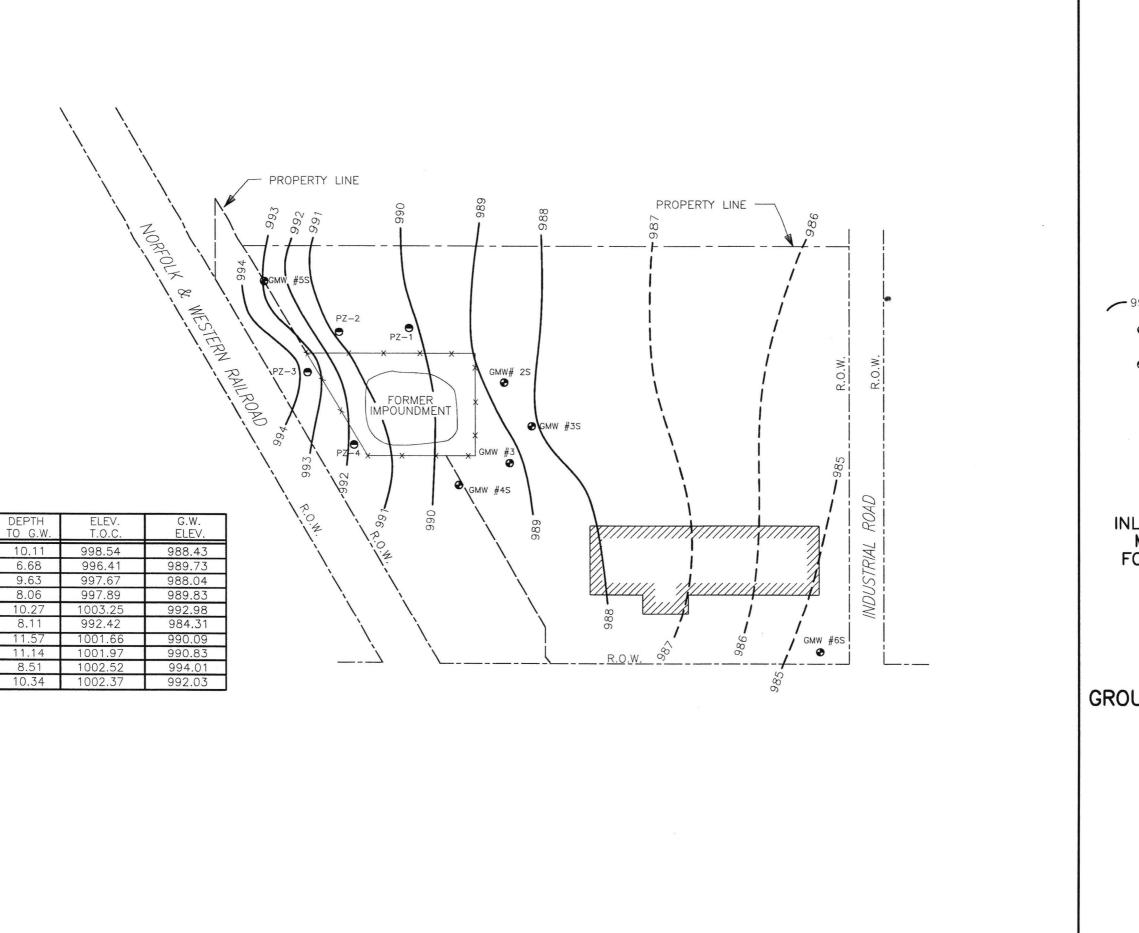
## GROUND WATER ELEVATION CONTOUR MAP

3050.005-203 FEBRUARY, 2000



45

6S





## LEGEND

-990·

INFERRED GROUND WATER ELEVATION CONTOUR LINE

GROUND WATER MONITORING WELL

PIEZOMETER

INLAND REALTY COMPANY MARYVILLE, MISSOURI FOURTH QUARTER 1999 SHALLOW WELLS

GROUND WATER ELEVATION CONTOUR MAP

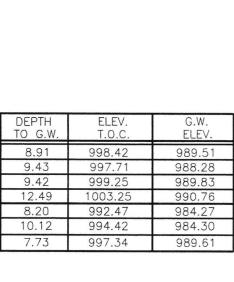
3050.005-206 FEBRUARY, 2000

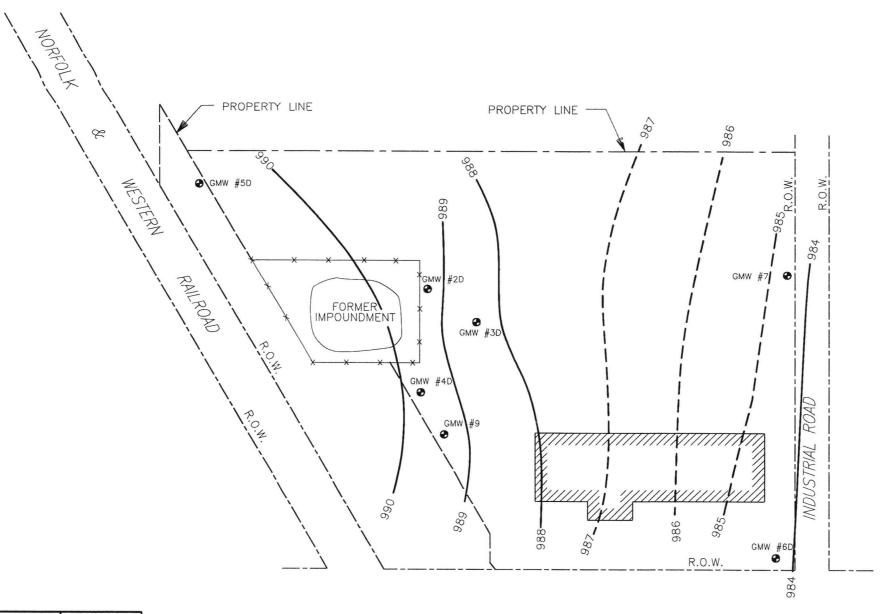


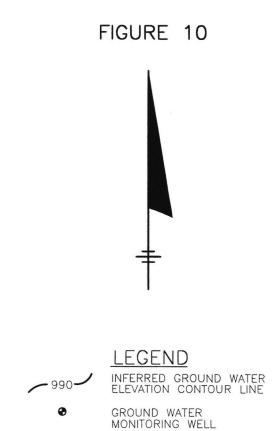
WELL NO.

2D

3D







INLAND REALTY COMPANY MARYVILLE, MISSOURI FOURTH QUARTER 1999 DEEP WELLS

GROUND WATER ELEVATION CONTOUR MAP

3050.005-207 FEBRUARY, 2000



Ground water sampling field logs

D'BRIEN & GERE ENGINEERS	S INC		Ground Wa	ter Sampling Log			
	, 1110.				2 0.	. 1 1	
Date: 4/20, 23/99				Veather:	rery	willy	sainy Wit
Site Name: Inland Realty				Vell Number: Project Number:	3050	".005"	
Site Location Maryville, MO Personnel: William Wright				Evacuation Method	7	05/	
rersonnervviillam vvrignt				_vacuation ivietiloc	Las		
Capth of Mall *	21.75 ft.	\Mater \/	olume /ft. for:				
Depth of Well * Depth to Water *	572 ft	vvalei v		Well = 0.163 X L	wc		
ength of Water Column	16.03 ft.	X		Well = 0.653 X L			
	10.5 gal.(s)		6" Diameter	Well = 1.469 X L	WC		
	71.5 gal.(s)	S			2/	10	
-		Volume Did well	removed before as dry?	e sampling Yes	90/9 s	No	gal.(s)
							Other, Specify)
Measurements taken from	X Top of V	Vell Casing		Top of Protective (	Casing		——————————————————————————————————————
Vater parameters:							
Temperature	o Pooding		pH Reading			Conc	luctivity Reading
Temperature	e Reading	4.0 Star		93,99		00110	doctrity reading
		7.0 Star	ndard	7.03.		84 S Stand	dard NA
	- 0	10.0 Sta	andard	NH		1413 S St	andard 1410
	initial <i>58.</i> 7	initial	_	6.57		initial	1313
after / (gal.)	58.1	after / 0	(gal.)	6.64	after		(gal.) 1275
after 20 (gal.)	57.2	after 20	(gal.)	4.48	after		(gal.) 1381
after 30 (gal.)	57.3	after 30	(gal.) (	0.54	after		(gal.) /368
after <u>40</u> (gal.)	57	after 40	(gal.) (	1.53	after		(gal.) 1436
after(gal.)		after	(gal.)		after		(gal.)
Water Sample: 4/31/90 Fime Collected: 4/23/p	9,1430 Hex Cr 9,0900 metale	<u>ر</u>					
	•						
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Color Odor Turbidity (> 100 NTUs) Sheen/Free Product	the sust es		Color Odor Turbidity (>	· 100 NTU's)	pling	l styri	
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product	T NO		Color Odor Turbidity (>	· 100 NTU's)	pling  ALA	l styring distribution	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr,	, Hex Cr, CN, Hg, Mn, N	i, Pb, Zn	Color Odor Turbidity (> Sheen/Free	· 100 NTU's) e Product	рН	14 C	Conductivity
Color Ddor Turbidity (> 100 NTUs) Sheen/Free Product  Cample Parameters: Cd, Cr, Container Size	Hex Cr, CN, Hg, Mn, N  Container Type	i, Pb, Zn	Color Odor Turbidity (> Sheen/Free	Preservative	pH 12	4 C	Conductivity
Color Ddor Ddor Turbidity (> 100 NTUs) Sheen/Free Product  Cample Parameters: Cd, Cr, Container Size 500 ml	Hex Cr, CN, Hg, Mn, N  Container Type plastic	i, Pb, Zn  # Collected 1 1 1	Color Odor Turbidity (> Sheen/Free	Preservative NaOH none HNO3	pH 12	4 C 4 C	Conductivity
Color Ddor Ddor Turbidity (> 100 NTUs) Sheen/Free Product  Cample Parameters: Cd, Cr, Container Size 500 ml 500 ml	Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic	i, Pb, Zn  # Collected 1 1	Color Odor Turbidity (> Sheen/Free	Preservative NaOH none	pH 12	4 C	Conductivity
Color Ddor Odor Furbidity (> 100 NTUs) Sheen/Free Product  Container Size  500 ml  500 ml	Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic plastic	i, Pb, Zn  # Collected 1 1 1	Color Odor Turbidity (> Sheen/Free	Preservative NaOH none HNO3	pH 12	4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr,  Container Size 500 ml 500 ml	Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic plastic	i, Pb, Zn  # Collected 1 1 1	Color Odor Turbidity (> Sheen/Free	Preservative NaOH none HNO3	pH 12	4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr,  Container Size 500 ml 500 ml	Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic plastic	i, Pb, Zn  # Collected 1 1 1	Color Odor Turbidity (> Sheen/Free	Preservative NaOH none HNO3	pH 12	4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr,  Container Size 500 ml 500 ml	Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic plastic	i, Pb, Zn  # Collected 1 1 1	Color Odor Turbidity (> Sheen/Free	Preservative NaOH none HNO3	pH 12	4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr,  Container Size 500 ml 500 ml	Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic plastic platic	i, Pb, Zn  # Collected 1 1 1	Color Odor Turbidity (> Sheen/Free	Preservative NaOH none HNO3	pH 12	4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr,  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Check	Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic platic  platic	i, Pb, Zn  # Collected 1 1 1 1	Color Odor Turbidity (> Sheen/Free	Preservative NaOH none HNO3 HNO3	pH 12 <2 <2 <2	4 C 4 C 4 C 4 C	
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Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr,  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clear Well covers and locks in good of significant or significant o	Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic platic  clist:  rly marked?  condition and secure?  aligned and secure?	i, Pb, Zn  # Collected 1 1 1 1	Color Odor Turbidity (> Sheen/Free	Preservative NaOH none HNO3 HNO3	pH 12 <2 <2 ×2 ×x	No No	
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Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr, Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clear Well covers and locks in good of the well stand pipe vertically lis the concrete pad and surface. Are soils surrounding the well ple the PVC well casing in good	Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic platic  platic  condition and secure? aligned and secure? e seal in good condition? condition?	# Collected 1 1 1 1	Color Odor Turbidity (> Sheen/Free	Preservative NaOH none HNO3 HNO3  Ye Ye Ye Ye Ye	pH 12 <2 <2 <2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2	No No No No No	X
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr,  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clear Well covers and locks in good of the concrete pad and surface. Are soils surrounding the well plis the PVC well casing in good of the standing water in the a	Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic platic  platic  condition and secure? aligned and secure? e seal in good condition? condition? condition? condition? condition?	# Collected 1 1 1 1 1 see well stand pipe	Color Odor Turbidity (> Sheen/Free	Preservative NaOH none HNO3 HNO3  Ye Ye Ye Ye Ye Ye Ye Ye Ye	pH 12 <2 <2 <2 <2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2	No N	X
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OIDDIEN & OFDE ENGINEED	C INC		Craund M	loter Compline Log			
O'BRIEN & GERE ENGINEER	5, INC.		Ground V	/ater Sampling Log	1	//	,
Date: 4/20.23/99	9			Weather:	dion	escart	reinel
Site Name: Inland Realty	1			Well Number:		GMW-2D	/
Site Location Maryville, MO				Project Number:	3050	".005"	
Personnel: William Wright				Evacuation Method	: DA	uler	
<u></u>			_				
Depth of Well *	32.06 ft.	Water Vo	olume /ft. for	·			
Depth to Water *	5.87 ft.	X		er Well = 0.163 X L	WC		
Length of Water Column	659 ft.		4" Diamet	er Well = 0.653 X L	WC		
Volume of Water in Well	4.3 gal.(s)			er Well = 1.469 X L			
3X Volume of Water in Well	73 gal.(s)	V				,	
or volume of volume in vol	9(-)	Volume r	emoved before	ore sampling	151	20 g	al.(s)
		Did well		Yes	3	<i>ZU</i> g	Y'
			, ,				_
				_		((	Other, Specify)
*Measurements taken from	X Top of V	Vell Casing		Top of Protective C	Casing		
Water parameters:							
							The state of the s
Temperatu	re Reading		pH Readi			Condi	uctivity Reading
		4.0 Stand		4.02		04 0 04 1	~ a14
		7.0 Stand		1.01		84 S Stand 1413 S Sta	
	50 1	10.0 Sta	ndard	NO			1/1
	initial $59.1$	initial	(22)	6.23	after	initial	$\frac{902}{901}$
after(gal.)	59.6	after 5	(gal.)	6.47	after		,
after / O (gal.)	58.7	after 10	(gal.)	6.46	after		gal.) 989
after 15 (gal.)	5962	after 15	(gal.)	6.42	after		gal.) 588 gal.) 585
after <u>20</u> (gal.)	5216	after 20	(gal.)	6.8	after		gal.) <u>945</u> gal.)
after(gal.)		after	(gal.)		aitei	(;	Jai. /
Water Sample: 4/2/99, / Time Collected: 4/23/99,	440 HexCr 518, Metale				1		
*					T	٦	
Physical Appearance at Start			Physical .	Appearance at Sam	piing	- ,	
	i e	17				0 -	
0	. D		Color		1.1	stain	2
Color les	then sust	red	Color		21	stain	ed .
Color les	es then ust	red	Odor	(> 100 NTU's)	Jek y	stain	i S
Color Odor Turbidity (> 100 NTUs)	of then sust,	sed	Odor Turbidity	(> 100 NTU's) ee Product	Jek y	stain int no	e D
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product	r Hex Cr. CN. Ha. Mn. N	i, Pb, Zn	Odor Turbidity		Jek y	of ain	<i>.</i>
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C	r, Hex Cr, CN, Hg, Mn, N		Odor Turbidity Sheen/Fr	ee Product	J. J.	James James	Canductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C	Container Type	# Collected	Odor Turbidity Sheen/Fr	ee Product Preservative		Temp.	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml	Container Type plastic		Odor Turbidity Sheen/Fr Filtered	Preservative NaOH		4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml	Container Type plastic plastic	# Collected 1	Odor Turbidity Sheen/Fr Filtered no	Preservative NaOH none	12	4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml	Container Type plastic plastic plastic	# Collected 1 1 1	Odor Turbidity Sheen/Fr Filtered no no	Preservative NaOH none HNO3	<2	4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml	Container Type plastic plastic	# Collected 1	Odor Turbidity Sheen/Fr Filtered no	Preservative NaOH none	12	4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml	Container Type plastic plastic plastic	# Collected 1 1 1	Odor Turbidity Sheen/Fr Filtered no no	Preservative NaOH none HNO3	<2	4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml	Container Type plastic plastic plastic	# Collected 1 1 1	Odor Turbidity Sheen/Fr Filtered no no	Preservative NaOH none HNO3	<2	4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml	Container Type plastic plastic plastic	# Collected 1 1 1	Odor Turbidity Sheen/Fr Filtered no no	Preservative NaOH none HNO3	<2	4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml	Container Type plastic plastic plastic	# Collected 1 1 1	Odor Turbidity Sheen/Fr Filtered no no	Preservative NaOH none HNO3	<2	4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 1 liter	Container Type plastic plastic plastic plastic platic	# Collected 1 1 1	Odor Turbidity Sheen/Fr Filtered no no	Preservative NaOH none HNO3	<2	4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 1 liter	Container Type plastic plastic plastic plastic platic	# Collected 1 1 1	Odor Turbidity Sheen/Fr Filtered no no	Preservative NaOH none HNO3	<2	4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Check	Container Type plastic plastic plastic plastic platic	# Collected 1 1 1 1 1	Odor Turbidity Sheen/Fr Filtered no no no	Preservative NaOH none HNO3 HNO3	12 <2 <2 <2	4 C 4 C 4 C 4 C	
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Check  Well identification number clea	Container Type plastic plastic plastic platic platic	# Collected 1 1 1 1 1	Odor Turbidity Sheen/Fr Filtered no no no	Preservative NaOH none HNO3 HNO3	12 <2 <2 <2 <2 <2 <	4 C 4 C 4 C 4 C	
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clea	Container Type plastic plastic plastic platic  platic  sklist:  arly marked?	# Collected 1 1 1 1 1	Odor Turbidity Sheen/Fr Filtered no no no	Preservative NaOH none HNO3 HNO3	12 <2 <2 <2 <2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2	No No	
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clea Well covers and locks in good Is the well stand pipe vertically	Container Type plastic plastic plastic platic  platic  cklist:  arly marked?  condition and secure?	# Collected 1 1 1 1 1	Odor Turbidity Sheen/Fr Filtered no no no	Preservative NaOH none HNO3 HNO3	12 <2 <2 <2 <2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2	No No No	
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number cleavel well stand pipe vertically is the concrete pad and surface.	Container Type plastic plastic plastic platic  platic  cklist:  arly marked? condition and secure? valigned and secure?	# Collected 1 1 1 1 1 1	Odor Turbidity Sheen/Fr Filtered no no no	Preservative NaOH none HNO3 HNO3  Ye Ye Ye Ye	12 <2 <2 <2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×4 ×4 ×4 ×4 ×4 ×4 ×4 ×4 ×4 ×4 ×4 ×4 ×4	No No No	
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number cleavely covers and locks in good is the well stand pipe vertically is the concrete pad and surface Are soils surrounding the well	Container Type plastic plastic plastic platic  platic  sklist:  arly marked?  condition and secure?  aligned and secure?  ce seal in good condition?  pad eroded?	# Collected 1 1 1 1 1	Odor Turbidity Sheen/Fr Filtered no no no	Preservative NaOH none HNO3 HNO3  Ye Ye Ye Ye Ye	12 <2 <2 <2 ×2 ×2 ×3 ×4 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5	No No No No No	<u></u>
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clear Well covers and locks in good is the well stand pipe vertically is the concrete pad and surface Are soils surrounding the well Is the PVC well casing in good	Container Type plastic plastic plastic plastic platic  sklist:  arly marked?  condition and secure?  valigned and secure?  pad eroded?  d condition?	# Collected 1 1 1 1 1 1	Odor Turbidity Sheen/Fr Filtered no no no	Preservative NaOH none HNO3 HNO3  HNO3  Ye Ye Ye Ye Ye Ye Ye	12 <2 <2 <2 ×2 ×3 ×4 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5	No N	<u>×</u>
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clear Well covers and locks in good is the well stand pipe vertically is the concrete pad and surface Are soils surrounding the well is the PVC well casing in good is there standing water in the	Container Type plastic plastic plastic plastic platic  platic  sklist:  arly marked?  condition and secure?  valigned and secure?  pad eroded?  d condition?  annular space between the	# Collected 1 1 1 1 1 1 ne well stand pipe a	Odor Turbidity Sheen/Fr  Filtered no no no no no	Preservative NaOH none HNO3 HNO3  HNO3  Ye Ye Ye Ye Yessing? Ye	12 <2 <2 <2 <2 ×2 ×3 ×4 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5	No N	<u>×</u>
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number cleavel covers and locks in good is the well stand pipe vertically is the concrete pad and surface Are soils surrounding the well is the PVC well casing in good is there standing water in the list he stand pipe vented at the standing water in the list he water water water	Container Type plastic plastic plastic plastic plastic platic  platic  eklist:  arly marked? condition and secure? de seal in good condition? pad eroded? annular space between the base to provide drainage	# Collected  1 1 1 1 1 1 ne well stand pipe a	Odor Turbidity Sheen/Fr  Filtered no no no no and PVC care	Preservative NaOH none HNO3 HNO3  HNO3  Ye	12 <2 <2 <2 <2 <2 <2 <2 <4 <4 <4 <4 <4 <4 <4 <4 <4 <4 <4 <4 <4	No N	<u>×</u>
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number cleavel covers and locks in good list the well stand pipe vertically list the concrete pad and surface Are soils surrounding the well is the PVC well casing in good list there standing water in the list he stand pipe vented at the Does the total depth of the well	Container Type plastic plastic plastic plastic platic  platic  sklist:  arly marked? condition and secure? digned and secure? de seal in good condition? pad eroded? de condition? annular space between the base to provide drainage il sounded correspond wi	# Collected  1 1 1 1 1 1 ne well stand pipe a	Odor Turbidity Sheen/Fr  Filtered no no no no and PVC care	Preservative NaOH none HNO3 HNO3  HNO3  Ye	12 <2 <2 <2 <2 <2 <2 <2 <4 <4 <4 <4 <4 <4 <4 <4 <4 <4 <4 <4 <4	No N	× ×
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clear Well covers and locks in good is the well stand pipe vertically is the concrete pad and surface Are soils surrounding the well is the PVC well casing in good is the PVC well casing in good is the policy well casing in good is the policy well casing in good is the policy well casing in good in the policy well as the policy well casing in good in the policy well as the policy well casing in good in the policy well as the policy well casing in good in the policy well as the policy well casing in good in the policy well as	Container Type plastic plastic plastic plastic platic  platic  sklist:  arly marked? condition and secure? de seal in good condition? pad eroded? de condition? annular space between the base to provide drainage il sounded correspond wievation:  998.42	# Collected  1 1 1 1 1 1 ne well stand pipe a	Odor Turbidity Sheen/Fr  Filtered no no no no and PVC care	Preservative NaOH none HNO3 HNO3  HNO3  Ye	12 <2 <2 <2 <2 <2 <2 <2 <4 <4 <4 <4 <4 <4 <4 <4 <4 <4 <4 <4 <4	No N	× ×

BRIEN & GERE ENGINEER	S, INC.		Ground \	Water Sampling Log		, , , , , , , , , , , , , , , , , , ,	
Pate: 4/20,23/99 ite Name: Inland Realty	-			Weather: Well Number:	2050	GMW-3	rainy, co
ite Location Maryville, MO Personnel: William Wright				Project Number: Evacuation Method	3050 1: 3	".005" aile/	
Depth of Well * Depth to Water * ength of Water Column folume of Water in Well X Volume of Water in Well	18.50 ft.  7.12 ft.  7.38 ft.  9.30 gal.(s)  gal.(s)	X	4" Diame 6" Diame	or: eter Well = 0.163 X L eter Well = 0.653 X L eter Well = 1.469 X L efore sampling	WC WC	140 No	gal.(s)
Measurements taken from	X Top of V	Vell Casing		Top of Protective (			(Other, Specify)
Vater parameters:		voii odoinig			- uoy		
after / O (gal.) after 2 O (gal.) after 3 O (gal.) after 4 O (gal.) after (gal.)	initial /0.9°C //.7 /2.1 //.2	7.0 St	(gal.) (gal.)	ting  7. 0  NA  6.7  6.7  6.7  6.7	after after after after	84 S Stan 1413 S Si initial (0 20 30	ductivity Reading  Index of tandard (1/15 (2) (2) (2) (2) (2) (2) (2) (2) (2) (2)
	13:40 Aex Cr 11:05 Metals		Physical	I Appearance at Sam	pling		
olor Gray odor Jurbidity (> 100 NTUs)	11:05 Metals 11:05 Metals 1 stand		Color Odor Turbidity	I Appearance at Sam y (> 100 NTU's) Free Product	pling	mone no no no no	to cleav
Color Odor Curbidity (> 100 NTUs) Cheen/Free Product  Cample Parameters: Cd, Cr	Hex Cr. CN. Hg, Mn, N		Color Odor Turbidity Sheen/F	y (> 100 NTU's) Free Product	12	nong nu nu	
Color Start Odor Odor Odor Odor Odor Odor Odor Odor	Hex Cr, CN, Hg, Mn, N Container Type	li, Pb, Zn  # Collected	Color Odor Turbidity Sheen/F	y (> 100 NTU's) Free Product	₽ PH	Temp.	++ cleav  Conductivity
color Odor Odor Odor Odor Odor Odor Odor Od	Hex Cr. CN. Hg, Mn, N	# Collected	Color Odor Turbidity Sheen/F	y (> 100 NTU's) Free Product	₽ PH	Temp.	
Color Odor Urbidity (> 100 NTUs) Sheen/Free Product  Container Size 500 ml	Hex Cr, CN, Hg, Mn, N  Container Type plastic	# Collected	Color Odor Turbidity Sheen/F	y (> 100 NTU's) Free Product  Description:	₽ PH	Temp.	
Color Odor Urbidity (> 100 NTUs) Sheen/Free Product  Container Size  500 ml  500 ml	Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic	# Collected	Color Odor Turbidity Sheen/F	y (> 100 NTU's) Free Product  Description  Preservative NaOH  none HNO3	pH 12 <2	Temp. 2 4 C 4 C 4 C	
Color Odor Urbidity (> 100 NTUs) Sheen/Free Product  Container Size  500 ml  500 ml	Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic platic  platic  rly marked?	# Collected 1 1 1 1 1 1 ewell stand pip	Color Odor Turbidity Sheen/F	y (> 100 NTU's) Free Product  d Preservative NaOH none HNO3 HNO3  Ye Ye Ye Ye asing? Ye	pH 17 22 <2 <2 <2 <2 <2 <2 <4 <4 <4 <4 <4 <4 <4 <4 <4 <4 <4 <4 <4	Temp. 2 4 C 4 C 4 C 4 C No	

te Name: Inland Reafty Maryville, MO  tersonnel: William Wright  Septh of Well * 23.61 ft. spith to Water * 5.55 ft. spith to Water * 5.55 ft. spith to Water * 5.55 ft. spith to Water in Well * 3 gal.(s)  Solume of Water in Well * 3 gal.(s)  Wollman Wright  Water Volume Ift. for:  X	te Name Indian Reality Le Location Maryville, MO Project Number Project Number Project Number Project Number Project Number Society of Well Water Society of Water Society of Water Society of Water in Well Society of Water well = 0 163 × LWC Society of Dameter Well = 0 163 × LWC S	te Name: Inland Reálty te Location Maryville, MO ersonnel: William Wright  epth of Well * epth to Water * ength of Water Column clume of Water in Well ( Volume of Water in Well  Measurements taken from Vater parameters:	Tt.  gal.(s)  gal.(s)  X  Top of Well Ca	X Volume re Did well g	2" Diamet 4" Diamet 6" Diamet emoved bef	Well Number: Project Number: Evacuation Method  er Well = 0.163 X L  er Well = 0.653 X L  er Well = 1.469 X L	3050 d: <b>ball</b> wc	3MW-35 ".005"	
Temperature Reading	the Name in Indiand Resity te Location Marynile, MO ersonnel: William Wright  epth of Well * epth of Water * e	ite Name: Inland Reálty ite Location Maryville, MO ersonnel: William Wright  epth of Well * epth to Water * ength of Water Column olume of Water in Well X Volume of Water in Well  Weasurements taken from Water parameters:	Tt.  gal.(s)  gal.(s)  X  Top of Well Ca	X Volume re Did well g	2" Diamet 4" Diamet 6" Diamet emoved bef	Project Number: Evacuation Method :: er Well = 0.163 X L er Well = 0.653 X L ter Well = 1.469 X L	3050 d: <b>ball</b> wc	3MW-35 ".005"	
epth of Well * epth to Water * 23.51 ft.	epth of Well * epth to Water ' work to Water ' specified in the specified	epth of Well * epth to Water * ength of Water Column olume of Water in Well X Volume of Water in Well  Measurements taken from Vater parameters:	Tt.  gal.(s)  gal.(s)  X  Top of Well Ca	X Volume re Did well g	2" Diamet 4" Diamet 6" Diamet emoved bef	Evacuation Methoders:  Ser Well = 0.163 X Lore Well = 0.653 X Lore Well = 1.469 X Lore	wc	-	7
Water Volume   Water	Water Volume	Pepth of Well * 23.6 Pepth to Water * ength of Water Column Volume of Water in Well X Volume of Water in Well Measurements taken from Vater parameters:	Tt.  gal.(s)  gal.(s)  X  Top of Well Ca	X Volume re Did well g	2" Diamet 4" Diamet 6" Diamet emoved bef	er Well = 0.163 X L ter Well = 0.653 X L ter Well = 1.469 X L	.wc		7
	sent to Water Column olume of Water in Well agal (s)  Water Sample:    Sample   Samp	epth to Water * ength of Water Column olume of Water in Well X Volume of Water in Well  Measurements taken from Vater parameters:	Tt.  gal.(s)  gal.(s)  X  Top of Well Ca	X Volume re Did well g	2" Diamet 4" Diamet 6" Diamet emoved bef	ter Well = 0.163 X L ter Well = 0.653 X L ter Well = 1.469 X L	WC		
	sent to Water Column olume of Water in Well gal.(s)  X Volume of Water in Well gal.(s)  X Volume of Water in Well gal.(s)  X Volume of Water in Well gal.(s)  Water parameters:  Temperature Reading  Initial J. Gal. (a)  A Standard  To p of Protective Casing  Conductivity Reading  A Standard  To Standard	epth to Water * ength of Water Column folume of Water in Well X Volume of Water in Well Measurements taken from Vater parameters:	Tt.  gal.(s)  gal.(s)  X  Top of Well Ca	X Volume re Did well g	2" Diamet 4" Diamet 6" Diamet emoved bef	ter Well = 0.163 X L ter Well = 0.653 X L ter Well = 1.469 X L	WC		
Sal.(s)   Sal.	Solume of Water in Well agal (s)  X Volume of Water in Well agal (s)  X Volume removed before sampling	Volume of Water in Well  X Volume of Water in Well  Measurements taken from  Vater parameters:	_gal.(s)  XTop of Well Ca	Did well g	6" Diamet	er Well = 1.469 X L			
Volume of Water in Well   9 gal.(s)   Volume removed before sampling   9 / 12 gal.(s)   No   No   No   No   No   No   No   N	Volume of Water in Well  Volume removed before sampling Did well go dry?  Volume removed before sampling Did well go dry?  Volume removed before sampling Did well go dry?  Volume removed before sampling Quiling No. X  (Other, Specify)  B4 S Standard Y Y O Other Standard Y O Other Y Othe	X Volume of Water in Well  Measurements taken from Vater parameters:	_gal.(s)  XTop of Well Ca	Did well g	emoved bef		. 7 7 0		
Volume removed before sampling   Did well go dry?   Yes   No   No   No   No   No   No   No   N	Volume removed before sampling Did well go dry?  Wes No X  Top of Well Casing Top of Protective Casing (Other, Specify)  Water parameters:  Temperature Reading 10.5 after 10.5	Measurements taken from Vater parameters:	X Top of Well Ca	Did well g		ore sampling	01		4
Measurements taken from   X   Top of Well Casing   Top of Protective Casing   Top of Protective Casing   Other, Specify	Measurements taken from X Top of Well Casing Top of Protective Casing Other, Specify)  Vater parameters:  Temperature Reading	Vater parameters:			o dry?		_9/_	1	_gal.(s)
Vater parameters:   Temperature Reading	Vater parameters:   Temperature Reading	Vater parameters:		asing		Ye	·s	INC	,
Temperature Reading	Vater parameters:    Temperature Reading	Vater parameters:		asing		7- (0 )	•		(Other, Specify)
Temperature Reading	Temperature Reading    Temperature Reading					Top of Protective	Casing		
A 0 Standard   7.0   84 S Standard   7.0   7.0 Standard   7.0 St	4.0 Standard   7.0   84 S Standard   7.0	Temperature Rea					E		
A 0 Standard   7.0   84 S Standard   7.0   7.0 Standard   7.0   7.0 Standard   7.0   7.0 Standard   7.0	4.0 Standard   7.0   84 S Standard   7.0   7.0   7.0 Standard	remperature Rea	dina		pH Readi	na		Co	nductivity Reading
10.0 Standard   14.13 S Standa	10.0 Standard   14.13 S Standa		unig		lard	4.0			./.
Initial	after 3 (gal.)					7.0			
After   Gal.	After   Gal.	a initial	11.3		Idaid	6.3			1144
after 9 (gal.) 41.10 Hex Cr after 1/2 (gal.) 41.10 Hex Cr Time Collected: 47.21/99, 141.10 Hex Cr Time Collected: 47.21/99, 141.10 Hex Cr Odor Turbidity (> 100 NTUs) Sheen/Free Product  Container Size Container Type # Collected Filtered Preservative pH Temp. Conductivity  Some Some plastic 1 no none 4 C	After   9   (gal.)   4   4   4   4   4   4   4   4   4		10			6.5	100000000000000000000000000000000000000	5	
after (gal.) (gal.) after (gal.) (gal.	after 12 (gal.) 41.10 Hex Cr irine Collected: 1/21/94 (93.) 41.10 Hex Cr irine Collected: 1/2 (gal.) 41.10 Hex Cr irine Collected: 1/2 (		#			6.5		9	
Nater Sample: #/31/99, 14:10 Hex Cr Firme Collected: #/23/99, 9950 Metals  Physical Appearance at Start  Physical Appearance at Sampling  Color Odor Odor Furbidity (> 100 NTUs) Sheen/Free Product  Container Size Container Type Turbidity Turbidity Turbidity (> 100 NTU's) Sheen/Free Product  Container Size Container Type Turbidity Turbidity Turbidity (> 100 NTU's) T	Nater Sample:					6.5		12	
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Container Size Container Type Tourbidity Turbidity T	Physical Appearance at Start  Color Codor Cuty Codor Cuty Codor Turbidity (> 100 NTUs) Sheen/Free Product  Container Size Container Type Som plastic S	10		ter	(gal.)		after		(gal.)
Ample Parameters: Cd, Cr, Hex Cr, CN, Hg, Mn, Ni, Pb, Zn  Container Size Container Type # Collected Filtered Preservative pH Temp. Conductivity  500 ml plastic 1 no NaOH 12 4 C  500 ml plastic 1 no none 4 C  500 ml plastic 1 no HNO3 <2 4 C	Ample Parameters: Cd, Cr, Hex Cr, CN, Hg, Mn, Ni, Pb, Zn    Container Size   Container Type   # Collected   Filtered   Preservative   pH   Temp.   Conductivity	dor			Odor	(> 100 NTU's)	8	none	
Container Size         Container Type         # Collected         Filtered         Preservative         pH         Temp.         Conductivity           500 ml         plastic         1         no         NaOH         12 4 C           500 ml         plastic         1         no         none         4 C           500 ml         plastic         1         no         HNO3         <2 4 C	Container Size         Container Type         # Collected         Filtered         Preservative         pH         Temp.         Conductivity           500 ml         plastic         1         no         NaOH         12 4 C         C           500 ml         plastic         1         no         none         4 C         C           500 ml         plastic         1         no         HNO3         <2 4 C         C           1 liter         platic         1         no         HNO3         <2 4 C         C    Monitoring Well Integrity Checklist:				,	<b>Y</b>		n	
Container Size         Container Type         # Solicoted         Timesed           500 ml         plastic         1         no         NaOH         12 4 C           500 ml         plastic         1         no         none         4 C           500 ml         plastic         1         no         HNO3         <2 4 C	Solution   Size   Solution   Size   Solution   Size   Solution   Size   Solution   Size   S	'			Filtered	Preservative	рH	Temp	Conductivity
500 ml plastic 1 no HNO3 <2 4 C	S00 ml   plastic   1   no   HNO3   <2   4   C				_			4 C	
SUO IIII PIASTIC 1 III III III III III III III III III	1 liter platic 1 no HNO3 <2 4 C  Monitoring Well Integrity Checklist:	500 ml	plastic						į
	Monitoring Well Integrity Checklist:								
		1 iitoi							
					-				
Well identification number clearly marked?		is the concrete had and surface sea	in good condition?			Y	es ×	- N	10
Well identification number clearly marked?	Is the concrete pad and surface seal in good condition?	to the DVC well easing in good cond	ition?				es X	_ N	lo
Well identification number clearly marked?  Well covers and locks in good condition and secure?  Is the well stand pipe vertically aligned and secure?  Is the concrete pad and surface seal in good condition?  Are soils surrounding the well pad eroded?  Is the PVC well casing in good condition?  Yes  No  No  No  No  No  No  No  No  No  N	Is the concrete pad and surface seal in good condition?  Are soils surrounding the well pad eroded?  Is the PVC well casing in good condition?  Yes No	IS THE LACE MEN CASHING IN GOOD COING	r space between the well	stand pipe a	and PVC ca	ising?Y	es	. N	lo_ <b>k</b>
Well identification number clearly marked?	Is the concrete pad and surface seal in good condition?  Are soils surrounding the well pad eroded?  Is the PVC well casing in good condition?  Is there standing water in the annular space between the well stand pipe and PVC casing?  Yes  No  No  No  No  No	is there standing water in the annula	to provide drainage?				es X	- 15	10
Well covers and locks in good condition and secure?  Is the well stand pipe vertically aligned and secure?  Is the concrete pad and surface seal in good condition?  Are soils surrounding the well pad eroded?  Yes  No  No  No  No  No  No  No  No  No  N	is the stand nine vented at the base to provide drainage?	Is there standing water in the annula							
s the stand nine vented at the base to provide drainage?	s the stand pipe vented at the base to provide drainage?	s there standing water in the annula s the stand pipe vented at the base Does the total depth of the well sour	n: 997.67						

BRIEN & GERE ENGINEE	ERS, INC.		Ground V	Vater Sampling Log			
vate: 4/20 -23/99				\\/aathar:	744.4.	AL.	
1				Weather: 0	ruce	4 h 1 GMW-3D	un
ite Name: Inland Réalty ite Location Maryville, MO			-	Project Number:	3050	".005"	
Personnel: William Wrig	iht		_	Evacuation Method		iles	
ersonner. vvillam vvilg				Evacuation (viction			
Pepth of Well *	36.66 ft.		olume /ft. for	r: ter Well = 0.163 X L			
Depth to Water * Length of Water Column	6. / /tt.	×		ter Well = 0.163 X L ter Well = 0.653 X L			
olume of Water in Well	5 gal.(s)			ter Well = 0.655 X L			
X Volume of Water in Well	15 gal.(s)		O Diarriet	ter vven - 1.403 X L	/		i
X voiding of vvalor in vvoi	<b>4</b> ga(0)	Volume r Did well s		fore sampling /	1		gal.(s)
			,			-	(Other, Specify)
Measurements taken from	X Top of \	Well Casing		Top of Protective (	Casing		(Other, opecity)
Vater parameters:		1					
Temperat	ture Reading		pH Readi	ng		Con	ductivity Reading
		4.0 Stand		4.02			
		7.0 Stand		7.04		84 S Star	
	initial / 📥 la	10.0 Star	ndard	NA		1413 S S	tandard /398
offer [ /!	initial 16.	initial	(aal )	6.0	after	initial	(03) 703
after (gal.		after 5	(gal.)	6. 5		10	(gal.) 78-53 (gal.)
10	1/1/10 7	after 16	(gal.)	6.7		15	(gal.) 775
		after 20	(gal.)	1.11		au	
after 20 (gal.) after (gal.)		after	(gal.) (gal.)	7	after		(gal.) <b>88/</b> (gal.)
ime Collected: 4/z3/99	10125 Metals		Physical A	Appearance at Sam	oling	]	
ime Collected: 4/z3/q4/	10125 Metals			Appearance at Sam	oling	]	
Physical Appearance at Start	10125 Metals		Color	Appearance at Sam	oling		
Vater Sample: #/2/99 / Fime Collected: #/2/99 / Physical Appearance at Stant Color Odor Furbidity (> 100 NTUS)	10125 Metals		Color Odor	6	oling Lea	me me	
Physical Appearance at Start	10125 Metals		Color Odor Turbidity	Appearance at Sam (> 100 NTU's) ree Product	oling  Lea	me no	
Physical Appearance at Standard Story Color Odor Urbidity (> 100 NTUs)	10125 Metals		Color Odor Turbidity	(> 100 NTU's)	de de	me nu	
color Starbidity (> 100 NTUs) Sheen/Free Product	10125 Metals	Ni, Pb, Zn	Color Odor Turbidity	(> 100 NTU's)	See Market	me nu vo	
Physical Appearance at Start Color Odor Urbidity (> 100 NTUs) Sheen/Free Product Cample Parameters: Cd, 100 Container Size	Cr, Hex Cr, CN, Hg, Mn, N	# Collected	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ree Product	pH PH	Temp.	Conductivity
Physical Appearance at Start  Color  Odor  Urbidity (> 100 NTUs)  Sheen/Free Product  Container Size  500 ml	Cr, Hex Cr, CN, Hg, Mn, N  Container Type plastic	# Collected	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ree Product  Preservative NaOH	pH PH	4 C	Conductivity
Physical Appearance at Start Color Odor Urbidity (> 100 NTUs) Sheen/Free Product  Container Size 500 ml 500 ml	Cr, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic	# Collected 1	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ee Product  Preservative NaOH none	pH 12	4 C	Conductivity
Physical Appearance at Start Color Odor Urbidity (> 100 NTUs) Sheen/Free Product  Container Size 500 ml 500 ml 500 ml	Cr, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ee Product  Preservative NaOH none HNO3	pH 12	4 C 4 C	Conductivity
Physical Appearance at Start Color Odor Urbidity (> 100 NTUs) Sheen/Free Product  Container Size 500 ml 500 ml	Cr, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic	# Collected 1	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ee Product  Preservative NaOH none	pH 12	4 C	Conductivity
Physical Appearance at Start Color Odor Urbidity (> 100 NTUs) Sheen/Free Product  Container Size 500 ml 500 ml 500 ml	Cr, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ee Product  Preservative NaOH none HNO3	pH 12	4 C 4 C	Conductivity
Physical Appearance at Start Color Odor Urbidity (> 100 NTUs) Sheen/Free Product  Container Size 500 ml 500 ml 500 ml	Cr, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ee Product  Preservative NaOH none HNO3	pH 12	4 C 4 C	Conductivity
Physical Appearance at Start Color Odor Urbidity (> 100 NTUs) Sheen/Free Product  Container Size 500 ml 500 ml 500 ml	Cr, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ee Product  Preservative NaOH none HNO3	pH 12	4 C 4 C	Conductivity
Physical Appearance at Start  Color Ddor Urbidity (> 100 NTUs) Cheen/Free Product  Container Size  500 ml  500 ml  1 liter	Cr, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic platic platic	# Collected 1 1 1	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ee Product  Preservative NaOH none HNO3	pH 12	4 C 4 C	Conductivity
Physical Appearance at Start Color Odor Urbidity (> 100 NTUs) Sheen/Free Product  Container Size 500 ml 500 ml 1 liter	Cr, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic platic platic	# Collected 1 1 1	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ee Product  Preservative NaOH none HNO3	pH 12	4 C 4 C	Conductivity
Physical Appearance at Start Color Odor Urbidity (> 100 NTUs) Sheen/Free Product  Container Size 500 ml 500 ml 500 ml 1 liter	Cr, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic platic  platic  ecklist:	# Collected 1 1 1 1 1	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ree Product  Preservative NaOH none HNO3 HNO3	PH 12 <2 <2	4 C 4 C 4 C 4 C	
Physical Appearance at Start Color Odor Urbidity (> 100 NTUs) Sheen/Free Product  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Che	ray Stain  Pay Stain  Cr, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic platic  platic  ecklist:  early marked?	# Collected 1 1 1 1	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ee Product  Preservative NaOH none HNO3 HNO3	PH 12 <2 <2 <2	4 C 4 C 4 C 4 C	
Physical Appearance at Start Physical Physical Appearance at Start Physical Physical Physical Physical Physical Physical Physical Ph	Cr, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic platic  ecklist:  early marked?	# Collected 1 1 1 1 1	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ee Product  Preservative NaOH none HNO3 HNO3	PH 12 <2 <2 <2 ×2	4 C	
Physical Appearance at Start Color Odor Urbidity (> 100 NTUs) Sheen/Free Product  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Che Well identification number cle Vell covers and locks in goos the well stand pipe vertical	Cr, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic platic  ecklist:  early marked?	# Collected 1 1 1 1 1	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ee Product  Preservative NaOH none HNO3 HNO3  Ye Ye Ye Ye	PH 12 <2 <2 <2 <2	No No No No	
Physical Appearance at Start Color Odor Urbidity (> 100 NTUs) Sheen/Free Product  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Che Well identification number cle Well covers and locks in goo is the well stand pipe vertical is the concrete pad and surfas	Cr, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic platic  platic  ecklist:  early marked?	# Collected 1 1 1 1 1 2	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ree Product  Preservative NaOH none HNO3 HNO3  Ye Ye Ye Ye Ye	pH 12 <2 <2 <2 ×2 × × ×	No N	
Physical Appearance at Start Color Odor Urbidity (> 100 NTUs) Sheen/Free Product  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Che Well identification number cle Well covers and locks in goo is the well stand pipe vertical is the concrete pad and surfare soils surrounding the we	Cr, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic platic  platic  ecklist:  early marked?	# Collected 1 1 1 1 1 2	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ree Product  Preservative NaOH none HNO3 HNO3  Ye Ye Ye Ye Ye Ye	pH 12 <2 <2 <2 ×2 × × × × × × × × × × × × ×	No N	X
Physical Appearance at Start Color Odor Steen/Free Product Sample Parameters: Cd, 100 MTUs)  Container Size 500 ml 500 ml 500 ml 11 liter  Monitoring Well Integrity Che Well identification number cle Well covers and locks in goods the well stand pipe verticals the concrete pad and surface soils surrounding the west the PVC well casing in goods the PVC well casing in goods the PVC well casing in goods.	Cr, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic platic  platic  ecklist:  early marked?	# Collected 1 1 1 1 1 2	Color Odor Turbidity Sheen/Fr	Preservative NaOH none HNO3 HNO3  Yee Ye Ye Ye Ye Ye Ye	pH 12 <2 <2 <2 ×2 × × × × × × × × × × × × ×	No N	X
Physical Appearance at Start Color Odor Urbidity (> 100 NTUs) Sheen/Free Product  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Che Well identification number cle Well covers and locks in goods the well stand pipe vertical Is the concrete pad and surface soils surrounding the well standing water in the	Cr, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic platic  platic  ecklist:  early marked?	# Collected 1 1 1 1 1 1 1 he well stand pipe a	Color Odor Turbidity Sheen/Fr	Preservative NaOH none HNO3 HNO3  Yee Ye ye ye ye ye ye ye ye ye	pH 12 <2 <2 <2 ×2 × × × × × × × × × × × × ×	No N	X X
Physical Appearance at Start Color Scheen/Free Product Scheen/Free	Cr, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic platic platic  ecklist:  early marked?	# Collected  1 1 1 1 1 2  he well stand pipe a	Color Odor Turbidity Sheen/Fr	Preservative NaOH none HNO3 HNO3  Ye	pH 12 <2 <2 <2 <x s="" s<="" td="" x=""><td>No No N</td><td>X X</td></x>	No N	X X
Physical Appearance at Start Color Start Color Start Color Start Color C	Cr, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic platic platic  ecklist:  early marked?	# Collected  1 1 1 1 1 2  he well stand pipe a	Color Odor Turbidity Sheen/Fr	Preservative NaOH none HNO3 HNO3  Ye	pH 12 <2 <2 <2 <x s="" s<="" td="" x=""><td>No No N</td><td>X X</td></x>	No N	X X
Physical Appearance at Start Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Che Well identification number cle Nell covers and locks in goo s the well stand pipe vertical s the concrete pad and surfa are soils surrounding the we stee PVC well casing in goo s there standing water in the stee stand pipe vented at the concept product of the well of the well of the stand pipe vented at the colors the total depth of the well of the w	Cr, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic platic platic  ecklist:  early marked?  ed condition and secure?  elly aligned and	# Collected  1 1 1 1 1 1  1  he well stand pipe a e?  ith original well com	Color Odor Turbidity Sheen/Fr	Preservative NaOH none HNO3 HNO3  Ye	pH 12 <2 <2 <2 <x s="" s<="" td="" x=""><td>No No N</td><td>X X</td></x>	No N	X X
Physical Appearance at Start Color Scheen/Free Product Scheen/Free	Cr, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic platic platic  ecklist:  early marked?  do condition and secure?  ally aligned and secure?  ally aligned and secure?  ace seal in good condition?  ace annular space between the base to provide drainage well sounded correspond with the base well as the base well as the	# Collected  1 1 1 1 1 1 1  he well stand pipe a e?ith original well com	Color Odor Turbidity Sheen/Fr	Preservative NaOH none HNO3 HNO3  Ye	pH 12 <2 <2 <2 <x s="" s<="" td="" x=""><td>No No N</td><td>X X</td></x>	No N	X X

O'BRIEN & GERE ENGINEEI	RS, INC.		Ground W	later Sampling Log			
Date: 4/20 - 23/9 Site Name: Inland Realty Site Location Maryville, MO Personnel: William Wrigh	9		_		<b>3050</b>	GMW-4S ".005"	iny, and
					-		
Depth of Well * Depth to Water * Length of Water Column Volume of Water in Well 3X Volume of Water in Well	20.48 ft. 4.04 ft. 1.04 ft. 1.05 gal.(s) 3.3 gal.(s)	X	4" Diamete 6" Diamete	er Well = 0.163 X L er Well = 0.653 X L er Well = 1.469 X L	WC	1175	-140
		Did well o		ore sampling Ye	s X	///.3g No	gal.(s)
					•	(	Other, Specify)
Measurements taken from	X Top of V	Vell Casing		Top of Protective	Casing		
Vater parameters:							
Temperatu	ure Reading	4.0 Stand 7.0 Stand 10.0 Stand	dard	7, 0 7, 0/ N A		Cond 84 S Stand 1413 S Sta	
after // (gal.) after /2, 5 (gal.) after /7, 5 (gal.) after (gal.) after (gal.)	initial <u>2.8</u> 2.2 12.0 12.2	initial after // after //2.5 after //2.5	(gal.) (gal.) (gal.) (gal.) (gal.)	5.9 6.1 6.1	afte afte	initial r //. ( r /2 · 5 ( r / 7 · 5 (	1936 gal.) 1924 gal.) 1924
Water Sample: 4/2/99 Time Collected: 4/2/99 Physical Appearance at Start				Appearance at Sam		\ 	<b>3</b> ,
Trysical Appearance at Start			T Try Sical 7	Appearance at Gam	piirig	_	
Color	rall		Color		- 64	us tau	
Odor 0	ray 17 t		Color Odor	(5.400 NTUIE)	gra	y 5 tan	
Odor Furbidity (> 100 NTUs)	ray Int no		Odor Turbidity (	(> 100 NTU's) ee Product	8 d	y 5 tau int no	
Odor Furbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C	_		Odor Turbidity ( Sheen/Fre	ee Product	8 0	y 5 fan	
Odor Furbidity (> 100 NTUs)	Cr, Hex Cr, CN, Hg, Mn, N  Container Type plastic	i, Pb, Zn  # Collected 1	Odor Turbidity (	ee Product		Temp.	Conductivity
container Size  500 ml  500 ml	Container Type plastic plastic	# Collected 1	Odor Turbidity ( Sheen/Fre	Preservative NaOH none	12	2 4 C	Conductivity
Container Size  500 ml  500 ml  500 ml	Container Type plastic plastic plastic plastic	# Collected 1 1 1	Odor Turbidity ( Sheen/Fre Filtered no no	Preservative NaOH none HNO3	<2	2 4 C 4 C 4 C	Conductivity
container Size  500 ml  500 ml	Container Type plastic plastic	# Collected 1	Odor Turbidity ( Sheen/Fre Filtered no no	Preservative NaOH none	12	2 4 C	Conductivity
Container Size  500 ml  500 ml  500 ml	Container Type plastic plastic plastic plastic	# Collected 1 1 1	Odor Turbidity ( Sheen/Fre Filtered no no	Preservative NaOH none HNO3	<2	2 4 C 4 C 4 C	Conductivity
Container Size  500 ml  500 ml	Container Type plastic plastic plastic plastic	# Collected 1 1 1	Odor Turbidity ( Sheen/Fre Filtered no no	Preservative NaOH none HNO3	<2	2 4 C 4 C 4 C	Conductivity
Container Size  500 ml  500 ml	Container Type plastic plastic plastic plastic	# Collected 1 1 1	Odor Turbidity ( Sheen/Fre Filtered no no	Preservative NaOH none HNO3	<2	2 4 C 4 C 4 C	Conductivity
Odor Furbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clean	Container Type plastic plastic plastic plastic platic  cklist:  arly marked?	# Collected 1 1 1 1 1	Odor Turbidity ( Sheen/Fre Filtered no no no	Preservative NaOH none HNO3 HNO3	12 <2 <2 <2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2	2 4 C 4 C 4 C 4 C	
Container Size  Somple Parameters: Cd, C  Container Size  500 ml  500 ml  1 liter   Monitoring Well Integrity Check Well identification number clean Well covers and locks in goods the well stand pipe vertically sthe concrete pad and surface	Container Type plastic plastic plastic plastic plastic platic  cklist:  arly marked?  d condition and secure? y aligned and secure? ce seal in good condition?	# Collected 1 1 1 1 1	Odor Turbidity ( Sheen/Fre Filtered no no no	Preservative NaOH none HNO3 HNO3	12 <2 <2 <2 <2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2	2 4 C 4 C 4 C 4 C	
Codor Furbidity (> 100 NTUs) Sheen/Free Product  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clean Well covers and locks in goods the well stand pipe vertically so the concrete pad and surface soils surrounding the well	Container Type plastic plastic plastic plastic platic  cklist:  arly marked? d condition and secure? y aligned and secure? ce seal in good condition? pad eroded?	# Collected 1 1 1 1 1	Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3 HNO3	12 <2 <2 <2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2	2 4 C 4 C 4 C 4 C	
500 ml 500 ml 500 ml	Container Type plastic plastic plastic plastic plastic platic  cklist:  arly marked?  d condition and secure?  y aligned and secure?  pad eroded?  d condition?  annular space between the base to provide drainage	# Collected 1 1 1 1 1 1 e well stand pipe a	Odor Turbidity ( Sheen/Free  Filtered no no no no no	Preservative NaOH none HNO3 HNO3  Ye	12 <2 <2 <2 <2 <2 <2 <2 <2 <2 <4 <4 <4 <4 <4 <4 <4 <4 <4 <4 <4 <4 <4	No N	X X

O'BRIEN & GERE EN	GINEERS, INC.		Ground	Water Sampling Log			
	- 23/99			Weather:	sperio	act to	sainey
Site Name: Inland R Site Location Maryville				Well Number: Project Number:	2050	GMW-4D	•
	Wright			Evacuation Metho	3050 h	ales	,
					·		
Depth of Well *	37.09 ft.	Water	Volume /ft. f	for:			
Depth to Water *	4.85 ft.	X		neter Well = 0.163 X L	_WC		
Length of Water Colur				neter Well = 0.653 X L			
Volume of Water in W 3X Volume of Water in			6" Diam	neter Well = 1.469 X L			
or voiding or voice.	ga(0)	Volume	e removed be	efore sampling	151	20 No	gal.(s)
		Did we	ll go dry?	Ye	es	No	1
							(Other, Specify)
*Measurements taken	from X Top	of Well Casing		Top of Protective	Casing		
Water parameters:							
vater parameters.	E						
Те	mperature Reading		pH Rea			Con	ductivity Reading
		4.0 Sta 7.0 Sta		7.0		84 S Star	ndard NA
			tandard	IVA		1413 S S	
-4 5	initial // 8	initial	(1)	4.6	-6	initial	1228
after 7	_(gal.) <u> } -\$</u> (gal.) / <b>3.3</b>	after 6	(gal.) (gal.)	4.0	after after	70	(gal.) //68 (gal.) 972
after 15	(gal.) [3,/	after 15	(gal.)	6.3	after	15	(gal.) 957
after 20	_(gal.) <u>/3, 2</u> _	after 2'0		6.5	after after		(gal.) <b>954</b>
	_(gal.)	arter	(gal.)		aitei		(gal.)
Water Sample: 4/24	99-1400 . Harr						
Time Collected: 4/23/	199; 1140; Metals						
Time Collected: 4/z 3/ Physical Appearance a	199; 1140; Michals		Physica	al Appearance at Sam	npling	]	
Physical Appearance a	199; 1140; Michals			al Appearance at Sam	npling		
	199; 1140; Michals		Color	al Appearance at Sam	npling	w ne	
Physical Appearance a Color Odor Turbidity (> 100 NTUs	Scar funt		Color Odor Turbidit	y (> 100 NTU's)	les	ne ne	
Physical Appearance a Color Odor	Scar funt		Color Odor Turbidit		les	ne 10 10	
Physical Appearance a Color Odor Turbidity (> 100 NTUs	Scar funt		Color Odor Turbidit	y (> 100 NTU's)	les	ne ne no no	
Physical Appearance a Color Odor Turbidity (> 100 NTUs	Scar funt	In, Ni, Pb, Zn	Color Odor Turbidit	y (> 100 NTU's)	les	ne 10 10	
Color Odor Turbidity (> 100 NTUs Sheen/Free Product	Cd, Cr, Hex Cr, CN, Hg, N		Color Odor Turbidit	y (> 100 NTU's) Free Product	Ula po	w	Conductivity
Physical Appearance a  Color Odor Turbidity (> 100 NTUs Sheen/Free Product  Sample Parameters:  Container Size 500 ml	Cd, Cr, Hex Cr, CN, Hg, No plastic	e # Collected	Color Odor Turbidit Sheen/f	y (> 100 NTU's) Free Product	pH pH	Temp.	Conductivity
Physical Appearance a  Color Odor Turbidity (> 100 NTUs Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml	Cd, Cr, Hex Cr, CN, Hg, N  Container Type  plastic  plastic	e # Collected 1 1	Color Odor Turbidit Sheen/f	y (> 100 NTU's) Free Product  d Preservative NaOH none	pH 12	Temp. 4 C	Conductivity
Physical Appearance a  Color Odor Turbidity (> 100 NTUs Sheen/Free Product  Sample Parameters:  Container Size 500 ml	Cd, Cr, Hex Cr, CN, Hg, No plastic	e # Collected	Color Odor Turbidit Sheen/f	y (> 100 NTU's) Free Product  d Preservative NaOH none HNO3	pH pH	Temp.	Conductivity
Color Odor Turbidity (> 100 NTUs Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml	Cd, Cr, Hex Cr, CN, Hg, N  Container Type  plastic  plastic  plastic	e # Collected	Color Odor Turbidit Sheen/f	y (> 100 NTU's) Free Product  d Preservative NaOH none	pH 12	Temp. 4 C 4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml	Cd, Cr, Hex Cr, CN, Hg, N  Container Type  plastic  plastic  plastic	e # Collected	Color Odor Turbidit Sheen/f	y (> 100 NTU's) Free Product  d Preservative NaOH none HNO3	pH 12	Temp. 4 C 4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml	Cd, Cr, Hex Cr, CN, Hg, N  Container Type  plastic  plastic  plastic	e # Collected	Color Odor Turbidit Sheen/f	y (> 100 NTU's) Free Product  d Preservative NaOH none HNO3	pH 12	Temp. 4 C 4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml	Cd, Cr, Hex Cr, CN, Hg, N  Container Type  plastic  plastic  plastic	e # Collected	Color Odor Turbidit Sheen/f	y (> 100 NTU's) Free Product  d Preservative NaOH none HNO3	pH 12	Temp. 4 C 4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml	Cd, Cr, Hex Cr, CN, Hg, N  Container Type  plastic  plastic  plastic	e # Collected	Color Odor Turbidit Sheen/f	y (> 100 NTU's) Free Product  d Preservative NaOH none HNO3	pH 12	Temp. 4 C 4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml	Cd, Cr, Hex Cr, CN, Hg, Me Container Type plastic plastic platic	e # Collected	Color Odor Turbidit Sheen/f	y (> 100 NTU's) Free Product  d Preservative NaOH none HNO3	pH 12	Temp. 4 C 4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integri	Cd, Cr, Hex Cr, CN, Hg, Me Container Type plastic plastic platic platic	e # Collected 1 1 1 1 1	Color Odor Turbidit Sheen/f	y (> 100 NTU's) Free Product  d Preservative NaOH none HNO3 HNO3	pH 12 <2 <2	Temp. 4 C 4 C 4 C 4 C	
Color Odor Turbidity (> 100 NTUs Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integri	Cd, Cr, Hex Cr, CN, Hg, Me Container Type plastic plastic platic platic	e # Collected	Color Odor Turbidit Sheen/f	y (> 100 NTU's) Free Product  d Preservative NaOH none HNO3 HNO3	pH 12 <2 <2 <2	Temp. 4 C 4 C 4 C 4 C	
Color Odor Turbidity (> 100 NTUs Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integri Well identification num Well covers and locks Is the well stand pipe v	Cd, Cr, Hex Cr, CN, Hg, No Container Type plastic plastic platic	e # Collected	Color Odor Turbidit Sheen/f	y (> 100 NTU's) Free Product  d Preservative NaOH none HNO3 HNO3  Ye Ye	pH 12 <2 <2 <2 <2	Temp. 4 C 4 C 4 C 4 C No No No	
Color Odor Turbidity (> 100 NTUs Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integri Well identification num Well covers and locks Is the well stand pipe vis the concrete pad an	Cd, Cr, Hex Cr, CN, Hg, No plastic plastic plastic platic	e # Collected  1 1 1 1 1 1 services a servic	Color Odor Turbidit Sheen/f	y (> 100 NTU's) Free Product  d Preservative NaOH none HNO3 HNO3  Ye Ye Ye	pH 12 <2 <2 <2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2	Temp. 4 C 4 C 4 C 4 C No No No	
Color Odor Turbidity (> 100 NTUs Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integri Well identification num Well covers and locks Is the well stand pipe vils the concrete pad an Are soils surrounding to	Cd, Cr, Hex Cr, CN, Hg, Me Container Type plastic plastic platic	e # Collected 1 1 1 1 1 1 1 services a servi	Color Odor Turbidit Sheen/f	y (> 100 NTU's) Free Product  d Preservative NaOH none HNO3 HNO3  Ye Ye Ye Ye	pH 12 <2 <2 <2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2	Temp. 4 C 4 C 4 C 7 C 8 C 8 C 8 C 8 C 8 C 8 C 8 C 8 C 8 C 8	
Color Odor Turbidity (> 100 NTUs Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integri  Well identification num Well covers and locks Is the well stand pipe v Is the concrete pad an Are soils surrounding Is the PVC well casing	Cd, Cr, Hex Cr, CN, Hg, Me Container Type plastic platic	e # Collected  1 1 1 1 1 1 2 3 3 3 5 5 5 5 6 7 7 8 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	Color Odor Turbidit Sheen/f	y (> 100 NTU's) Free Product  d Preservative NaOH none HNO3 HNO3	pH 12 <2 <2 <2 <2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2	Temp. 4 C 4 C 4 C 4 C No No No No	X
Color Odor Turbidity (> 100 NTUs Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integri  Well identification num Well covers and locks Is the well stand pipe vente Is the PVC well casing Is there standing wate Is the stand pipe vente	Cd, Cr, Hex Cr, CN, Hg, Me Container Type plastic plastic plastic plastic plastic platic  ity Checklist:  the clearly marked?  in good condition and secure? do surface seal in good condition?  in in good condition?  in in good condition?  in in the annular space between at the base to provide drained.	e # Collected  1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2	Color Odor Turbidit Sheen/f  Filtere no no no no and A	y (> 100 NTU's) Free Product  d Preservative NaOH none HNO3 HNO3	pH 12 <2 <2 <2 <2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2	No N	X X
Color Odor Turbidity (> 100 NTUs Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integri  Well identification num Well covers and locks Is the well stand pipe vente Is the PVC well casing Is there standing wate Is the stand pipe vente	Cd, Cr, Hex Cr, CN, Hg, Me Container Type plastic plastic plastic plastic platic platic sity Checklist:  abor clearly marked?	e # Collected  1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2	Color Odor Turbidit Sheen/f  Filtere no no no no and A	y (> 100 NTU's) Free Product  d Preservative NaOH none HNO3 HNO3	pH 12 <2 <2 <2 <2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2	No N	X
Color Odor Turbidity (> 100 NTUs Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integri  Well identification num Well covers and locks Is the well stand pipe vente Is the PVC well casing Is there standing wate Is the stand pipe vente Does the total depth of	Cd, Cr, Hex Cr, CN, Hg, Me Container Type plastic platic p	e # Collected  1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2	Color Odor Turbidit Sheen/f  Filtere no no no no and A	y (> 100 NTU's) Free Product  d Preservative NaOH none HNO3 HNO3	pH 12 <2 <2 <2 <2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2	No N	X X
Color Odor Turbidity (> 100 NTUs Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integri  Well identification num Well covers and locks Is the well stand pipe v Is the concrete pad an Are soils surrounding is Is the PVC well casing Is the stand pipe vente Does the total depth of  NOTES: Top of c	Cd, Cr, Hex Cr, CN, Hg, Me Container Type plastic plastic plastic plastic plastic platic plat	# Collected  1 1 1 1 1 1  2 3 3 3 3 5 5 6 7 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	Color Odor Turbidit Sheen/f  Filtere no no no no and A	y (> 100 NTU's) Free Product  d Preservative NaOH none HNO3 HNO3	pH 12 <2 <2 <2 <2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2	No N	X X

	RS, INC.		Ground \	Water Sampling Log			
Date: \( \frac{\psi_zo - 2^2/9}{\psi_to - 2^2/9} \) Site Name: \( \frac{\psi_to - 2^2/9}{\psi_to - 2^2/9} \) Site Location \( \frac{\psi_to - 2^2/9}{\psi_to - 2^2/9} \) Personnel: \( \frac{\psi_to - 2^2/9}{\psi_to - 2^2/9} \) William \( \psi_to - 2^2/9 \)	9			Weather: Well Number: Project Number: Evacuation Method	3050	est to GMW-5S ".005"	rain
Depth of Well.* Depth to Water *	23.83 ft. 5.6/tt.	Water \		or: eter Well = 0.163 X L\ eter Well = 0.653 X L\			
ength of Water Column // /olume of Water in Well X Volume of Water in Well	gal.(s) gal.(s)		6" Diame	eter Well = 1.469 X L' efore sampling Yes		₹ No }	al (s)
Measurements taken from	X Top of V	Vell Casing		Top of Protective 0	Casing	(0	Other, Specify)
Vater parameters:							
Temperatu	re Reading			4.05 6.99 NA		84 S Standa 1413 S Star	
after 3 (gal.) after 6 (gal.) after 7 (gal.) after 7 (gal.) after 8 (gal.)	initial 38,3 55.3 55.2 56.0 0.6°C	after 3 after after after after after 1	(gal.) (gal.) (gal.) (gal.) (gal.)	6.33 6.45 6.45 6.2	after after after after after	12-	gal.) 2430 gal.) 2470 gal.) 2460 gal.) 7265 gal.) /28/
Water Sample: <b>4/3//99; 145</b> Time Collected: <b>4/22/99, 15</b> Physical Appearance at Start	15, Metals		Physica	I Appearance at Sam	pling		
Color S1	y finit		Color Odor		de	me	
Odor Turbidity (> 100 NTUs)	1		Turbidit	y (> 100 NTU's) Free Product	n	O'	
	W	And the second second second	Sheen/F				
Sheen/Free Product	r, Hex Cr, CN, Hg, Mn, N	li, Pb, Zn	Sheen/F				
Sheen/Free Product	r, Hex Cr, CN, Hg, Mn, N	li, Pb, Zn # Collected	Sheen/F			Temp.	Conductivity
Sheen/Free Product  Sample Parameters: Cd, C  Container Size  500 ml	Container Type plastic	# Collected	Filtere	NaOH		4 C	Conductivity
Sheen/Free Product  Sample Parameters: Cd, C  Container Size  500 ml  500 ml	Container Type plastic plastic	# Collected 1	Filtered no no	NaOH none	12	4 C	Conductivity
Sheen/Free Product  Sample Parameters: Cd, C  Container Size  500 ml	Container Type plastic	# Collected	Filtere	NaOH		4 C	Conductivity
Sample Parameters: Cd, C  Container Size  500 ml  500 ml	Container Type plastic plastic plastic	# Collected 1 1 1	Filtered no no no	NaOH none HNO3	<2	4 C 4 C 4 C	Conductivity
Sheen/Free Product  Sample Parameters: Cd, C  Container Size  500 ml  500 ml	Container Type plastic plastic plastic	# Collected 1 1 1	Filtered no no no	NaOH none HNO3	<2	4 C 4 C 4 C	Conductivity
Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Check	Container Type plastic plastic plastic plastic platic	# Collected 1 1 1 1 1	Filtered no no no no no	NaOH none HNO3 HNO3	12 <2 <2 <2	4 C 4 C 4 C 4 C	
Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clee Well covers and locks in good	Container Type plastic plastic plastic plastic platic  cklist:  arly marked?	# Collected 1 1 1 1 1	Filtered no no no no no	NaOH none HNO3 HNO3  Ye Ye Ye	12 <2 <2 <2 <2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2	No No No	
Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number cleice. Well covers and locks in good is the well stand pipe vertically is the concrete pad and surfall to the RMC well casing in good in the well.	Container Type plastic plastic plastic plastic plastic platic  cklist:  arly marked? d condition and secure? y aligned and secure? to eseal in good condition?	# Collected	Filtered no no no no	Yee Yee Yee Yee	12 <2 <2 <2 <2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2	4   C   4   C   4   C   C   C   C   C	<u>X</u>
Sheen/Free Product  Sample Parameters: Cd, C  Container Size  500 ml  500 ml	Container Type plastic plastic plastic plastic plastic plastic platic  cklist:  arly marked? d condition and secure? y aligned and secure? pad eroded? d condition? annular space between the base to provide drainage	# Collected 1 1 1 1 1 1 newell stand pipe	Filtered no	NaOH           none           HNO3           HNO3    Ye  Ye  asing?  Ye  Ye  Ye  Ye  Ye  Ye  Ye  Ye  Ye  Y	12 <2 <2 <2 <2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2 ×2	4   C   4   C   4   C   C   C   C   C	X

BRIEN & GERE ENGINEER	RS, INC.		Ground W	Vater Sampling Log			
ate: 4/20 - 2 2/9	19			Weather: Well Number:	oruc	SMW-5D	rain
te Location Maryville, MO				Project Number:	3050	".005"	
ersonnel: William Wright				Evacuation Method	i be	ilee	
		5A/ 1 3/	1 (6) 6				
epth of Well * epth to Water *	37.77 tt.	X X	olume /ft. for 2" Diamet	ter Well = 0.163 X L'	wc		
ength of Water Column	9.03 ft.			ter Well = 0.653 X L			
olume of Water in Well	gal.(s)		6" Diamet	ter Well = 1.469 X L	WC		
X Volume of Water in Well	<b>15</b> gal.(s)	,			1	7 \	
		Volume r Did well g		ore sampling Yes	19/	3 D No	gal.(s)
							(Other, Specify)
Measurements taken from	X Top of V	Vell Casing		Top of Protective (	Casing		
/ater parameters:					1		
Temperatu	re Reading	4.0 Stand	pH Readi	ng		Cond	ductivity Reading
		7.0 Stand				84 S Stan	dard
		10.0 Sta				1413 S St	andard
	initial <i>55.5</i>	initial		6.94		initial	1668
after (gal.)	57.3	after	(gal.)	6.95	after		(gal.) 1430
after 10 (gal.)	57.4	after	(gal.)	6.66	after	-	(gal.) // / O
after 15 (gal.)	57. 5	after	(gal.)	6.68	after	-	(gal.) 950
after 20 (gal.)	57.4	after	(gal.) (gal.)	6.16	after after		(gal.) 1240
	2//	41101	(94)				(3)
hysical Appearance at Start				Appearance at Sam	pling	]	
hysical Appearance at Start	ay		Physical A Color Odor	Appearance at Sam	pling de	m wwe	
color Curbidity (> 100 NTUs)	ay at		Color Odor Turbidity	(> 100 NTU's)	pling de	m one no	
color Curbidity (> 100 NTUs)	ay it ino		Color Odor Turbidity		pling	m no no	
The second secon	r, Hex Cr, CN, Hg, Mn, N		Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ree Product	de	one no pu	Conductivity
container Size  Start	r, Hex Cr, CN, Hg, Mn, N	li, Pb, Zn  # Collected	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ree Product Preservative	gk.	Temp.	Conductivity
color oddor urbidity (> 100 NTUs) heen/Free Product Cd, C	r, Hex Cr, CN, Hg, Mn, N  Container Type plastic	# Collected	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ree Product	gk.		Conductivity
hysical Appearance at Start color color ddor urbidity (> 100 NTUs) heen/Free Product ample Parameters: Cd, C Container Size	r, Hex Cr, CN, Hg, Mn, N	# Collected	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ree Product  Preservative NaOH	gk.	2 4 C	Conductivity
color oddor urbidity (> 100 NTUs) heen/Free Product Container Size 500 ml	r, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic	# Collected 1 1	Color Odor Turbidity Sheen/Fr Filtered no	(> 100 NTU's) ree Product  Preservative NaOH none	pH 12	4 C	Conductivity
color oddor urbidity (> 100 NTUs) heen/Free Product  Container Size  500 ml  500 ml	r, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity Sheen/Fr Filtered no no	(> 100 NTU's) ree Product  Preservative NaOH none HNO3	pH 12 <2	4 C 4 C	Conductivity
color oddor urbidity (> 100 NTUs) heen/Free Product  Container Size  500 ml  500 ml	r, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity Sheen/Fr Filtered no no	(> 100 NTU's) ree Product  Preservative NaOH none HNO3	pH 12 <2	4 C 4 C	Conductivity
hysical Appearance at Start color ddor urbidity (> 100 NTUs) heen/Free Product  ample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml	r, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity Sheen/Fr Filtered no no	(> 100 NTU's) ree Product  Preservative NaOH none HNO3	pH 12 <2	4 C 4 C	Conductivity
hysical Appearance at Start color ddor urbidity (> 100 NTUs) heen/Free Product  ample Parameters: Cd, C  Container Size 500 ml 500 ml 1 liter	r, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic platic	# Collected 1 1 1	Color Odor Turbidity Sheen/Fr Filtered no no	(> 100 NTU's) ree Product  Preservative NaOH none HNO3	pH 12 <2	4 C 4 C	Conductivity
Color Odor Curbidity (> 100 NTUs) Sheen/Free Product  Company Container Size Soo ml Soo ml Soo ml 1 liter  Monitoring Well Integrity Check Well identification number clear	r, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic platic platic  sklist:	# Collected 1 1 1 1 1	Color Odor Turbidity Sheen/Fr  Filtered no no no	(> 100 NTU's) ree Product  Preservative NaOH none HNO3 HNO3	pH 12 <2 <2 <2	4 C 4 C 4 C 4 C	
Color Odor Curbidity (> 100 NTUs) Sheen/Free Product  Comple Parameters: Cd, C  Container Size  500 ml  500 ml  1 liter  Monitoring Well Integrity Check  Vell identification number clea	r, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic platic  platic  sklist:  arly marked?	# Collected 1 1 1 1 1	Color Odor Turbidity Sheen/Fr  Filtered no no no	(> 100 NTU's) ree Product  Preservative NaOH none HNO3 HNO3	pH 12 <2 <2 <2 <	4 C 4 C 4 C 4 C	
Color Odor Urbidity (> 100 NTUs) Sheen/Free Product Container Size S00 ml S00 ml S00 ml 1 liter Container Well Integrity Check Color Size S00 ml S00	Container Type plastic plastic plastic plastic plastic platic	# Collected 1 1 1 1 1	Color Odor Turbidity Sheen/Fr  Filtered no no no	(> 100 NTU's) ree Product  Preservative NaOH none HNO3 HNO3	pH 12 <2 <2 <2 ×2 ×	No No No No No	
Color Odor Urbidity (> 100 NTUs) Sheen/Free Product  Cample Parameters: Cd, C  Container Size  500 ml  500 ml  500 ml  1 liter  Monitoring Well Integrity Check  Vell identification number clea  Vell covers and locks in good is the well stand pipe vertically is the concrete pad and surface	Container Type plastic plastic plastic plastic plastic platic  sklist:  arly marked?	# Collected 1 1 1 1 1	Color Odor Turbidity Sheen/Fr  Filtered no no no	(> 100 NTU's) ree Product  Preservative NaOH none HNO3 HNO3  Ye Ye Ye	pH 12 <2 <2 <2 ×x	No No No No No	
Color Odor Urbidity (> 100 NTUs) Sheen/Free Product Cample Parameters: Cd, Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Vell identification number clear the well stand pipe vertically is the concrete pad and surfactors of the well stand pipe vertically is the concrete pad and surfactors of the well stand pipe vertically is the concrete pad and surfactors of the well stand pipe vertically is the concrete pad and surfactors of the well stand pipe vertically is the concrete pad and surfactors of the well stand pipe vertically is the concrete pad and surfactors of the well stand pipe vertically is the concrete pad and surfactors of the well stand pipe vertically is the concrete pad and surfactors of the well stand pipe vertically is the concrete pad and surfactors of the well stand pipe vertically is the concrete pad and surfactors of the well stand pipe vertically is the concrete pad and surfactors of the well stand pipe vertically is the concrete pad and surfactors of the well stand pipe vertically is the concrete pad and surfactors of the well stand pipe vertically is the concrete pad and surfactors of the well stand pipe vertically is the concrete pad and surfactors of the well stand pipe vertically is the concrete pad and surfactors of the well stand pipe vertically is the concrete pad and surfactors of the well stand pipe vertically is the concrete pad and surfactors of the well stand pipe vertically is the concrete pad and surfactors of the well stand pipe vertically is the concrete pad and surfactors of the well stand pipe vertically is the concrete pad and surfactors of the well stand pipe vertically is the concrete pad and surfactors of the well stand pipe vertically is the concrete pad and surfactors of the well stand pipe vertically is the concrete pad and surfactors of the well stand pipe vertically is the concrete pad and surfactors of the well stand pipe vertically is the concrete pad and surfactors of the well stand pipe vertically is the concrete pad and surfactors o	Container Type plastic plastic plastic plastic plastic plastic platic	# Collected 1 1 1 1 1	Color Odor Turbidity Sheen/Fr  Filtered no no no	Preservative NaOH none HNO3 HNO3 Yee Yee	pH 12 <2 <2 <2 ×2 ×2 ×3 ×4 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5	No N	
hysical Appearance at Start  color odor urbidity (> 100 NTUs) heen/Free Product  cample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Vell identification number clear Vell covers and locks in good is the well stand pipe vertically is the concrete pad and surface is the PVC well casing in good is the PVC well casing in good	Container Type plastic plastic plastic plastic plastic plastic plastic valigned and secure?	# Collected 1 1 1 1 1	Color Odor Turbidity Sheen/Fr  Filtered no no no	Preservative NaOH none HNO3 HNO3  Yee Yee	pH 12 <2 <2 <2 ×2 ×2 ×3 ×4 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5	No N	<u>X</u>
Annitoring Well Integrity Check Vell identification number clear Vell covers and locks in goods the well stand pipe vertically is the PVC well casing in goods there stand pipe vented at the stand	Container Type plastic plastic plastic plastic plastic plastic plastic condition and secure? de seal in good condition? pad eroded? annular space between the base to provide drainage	# Collected  1 1 1 1 1 1 one well stand pipe a	Color Odor Turbidity Sheen/Fr  Filtered no no no no ano no n	Preservative NaOH none HNO3 HNO3  Yee Yee Yee Sing? Yee	pH 12 <2 <2 <2 ×2 × × × × × × × × × × × × ×	No N	
hysical Appearance at Start  olor odor urbidity (> 100 NTUs) heen/Free Product  ample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Vell identification number clear Vell covers and locks in good is the well stand pipe vertically is the concrete pad and surface were soils surrounding the well is the PVC well casing in good is there standing water in the	Container Type plastic plastic plastic plastic plastic plastic plastic condition and secure?	# Collected  1 1 1 1 1 1 ne well stand pipe and are:	Color Odor Turbidity Sheen/Fr  Filtered no no no no ano no n	Preservative NaOH none HNO3 HNO3  Yee Yee Yee Sing? Yee	pH 12 <2 <2 <2 ×2 × × × × × × × × × × × × ×	No N	<u>X</u>

O'BRIEN & GERE ENGINEERS Date: 4/21-23/99	S, INC.		Ground M	ater Sampling Log			
Date.			Ground VV	ater Sampling Log		11	•
				Weather:	orne	GMW-6S	sam
Site Name: Inland Realty				Well Number: Project Number:	3050	".005"	
Site Location Maryville, MO Personnel: William Wright				Evacuation Method:		ler	
Villiam VVIIIght			_				
Denth of Mall *	21.55 ft.	Water Vo	lume /ft. for:				
Depth of Well * Depth to Water *	21.33 ft.	X		er Well = 0.163 X LV	VC		
Length of Water Column	6.66 ft.			er Well = 0.653 X LV			
Volume of Water in Well	2. 7 gal.(s)		6" Diamete	er Well = 1.469 X LV	NC		
3X Volume of Water in Well	_ <b>7</b> gal.(s)	Volume r	emoved befo	re sampling	9/1	7_ 0	al.(s)
		Did well g		Yes			X
						,	Other, Specify)
*Measurements taken from	X Top of V	Vell Casing		Top of Protective C	asing		Other, Specify)
wieasurements taken nom	7 10p 01 v	ven easing		, rop 01 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
Water parameters:	r				1		
Temperature	e Reading		pH Readin	ıa		Cond	uctivity Reading
remperature	s reading	4.0 Stand		4. /			
		7.0 Stand		7.2		84 S Stand	
	initial 1 Z. 3	10.0 Star initial	ndard	53		initial	andard <u>  63@  6°(</u>
after <b>3</b> (gal.)	12.5	after 3	(gal.)	7. 2	after	-	gal.) 367
after (gal.)	2.8	after 6	(gal.)	7. 2	after	6	gal.) 368
after(gal.)	13.	after 9	(gal.)	7. 2	after after		gal.) 369 gal.) 466
after <b>/ '2</b> (gal.) after (gal.)	12.1	after / 2	(gal.) (gal.)	6.8	after		(gal.)
	11 (-		_ (3				
Water Sample: 4/21/49; /30	o' Hexcr						
Water Sample: 4/21/99; /30 Time Collected: 4/22/99; /30	5: Metals						
Physical Appearance at Start	1		Physical A	Appearance at Samp	oling	]	
Thysical Appearance at the	΄ . ·L					100	
Color	y tent		Color Odor		4	um	
Odor Turbidity (> 100 NTUs)	744	-		(> 100 NTU's)		no	
Sheen/Free Product	w			ee Product		no	1
Carrella Danamatara: Cd Cr	, Hex Cr, CN, Hg, Mn, N	li, Pb, Zn					
Sample Parameters. Cu. Ci							
			<b>5</b> 11	D	-14	Tomp	Conductivity
Container Size	Container Type	# Collected	Filtered	Preservative NaOH	pH 12	Temp.	Conductivity
Container Size 500 ml	plastic	# Collected 1	Filtered no no	Preservative NaOH none		Temp. 4 C 4 C	Conductivity
Container Size		1	no	NaOH	<2	4 C 4 C 4 C	Conductivity
Container Size 500 ml 500 ml	plastic plastic	1	no no	NaOH none	12	4 C 4 C	Conductivity
Container Size 500 ml 500 ml 500 ml	plastic plastic plastic	1 1 1	no no no	NaOH none HNO3	<2	4 C 4 C 4 C	Conductivity
Container Size 500 ml 500 ml 500 ml	plastic plastic plastic	1 1 1	no no no	NaOH none HNO3	<2	4 C 4 C 4 C	Conductivity
Container Size 500 ml 500 ml 500 ml	plastic plastic plastic	1 1 1	no no no	NaOH none HNO3	<2	4 C 4 C 4 C	Conductivity
Container Size 500 ml 500 ml 500 ml	plastic plastic plastic	1 1 1	no no no	NaOH none HNO3	<2	4 C 4 C 4 C	Conductivity
Container Size 500 ml 500 ml 500 ml	plastic plastic plastic	1 1 1	no no no	NaOH none HNO3	<2	4 C 4 C 4 C	Conductivity
Container Size 500 ml 500 ml 500 ml 1 liter	plastic plastic plastic platic	1 1 1	no no no	NaOH none HNO3	<2	4 C 4 C 4 C	Conductivity
Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Chec	plastic plastic plastic plastic platic	1 1 1 1 1	no no no no	NaOH none HNO3 HNO3	12 <2 <2	4 C 4 C 4 C 4 C	
Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Chec	plastic plastic plastic plastic platic  platic  klist:	1 1 1 1 1	no no no no	NaOH none HNO3 HNO3	12 <2 <2 <2	4 C 4 C 4 C 4 C	
Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Chec Well identification number clea	plastic plastic plastic plastic platic  platic  klist:  arly marked?	1 1 1 1 1	no no no no	NaOH none HNO3 HNO3	12 <2 <2 <2 ×2	4 C 4 C 4 C 4 C	
Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Chec Well identification number clea Well covers and locks in good	plastic plastic plastic plastic platic  platic  klist:  arly marked?	1 1 1 1 1	no no no no	NaOH none HNO3 HNO3  Ye Ye Ye	12 <2 <2 <2 ×2 ×3 ×5 ×5	4 C 4 C 4 C 4 C	
Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Chec Well identification number clea Well covers and locks in good Velt covers and pipe vertically	plastic plastic plastic plastic platic  klist:  arly marked? condition and secure? aligned and secure? aligned and secure?	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	no no no no	NaOH none HNO3 HNO3  Yes Yes Yes	12 <2 <2 <2 ×2 ×3 ×4 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5	4 C 4 C 4 C 4 C	
Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Chec Well identification number clea Well covers and locks in good Is the well stand pipe vertically Is the concrete pad and surface Are soils surrounding the well	plastic plastic plastic plastic platic  klist:  arly marked? condition and secure? aligned and secure? be seal in good condition?	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	no no no no	Ye Ye Ye Ye Ye	12 <2 <2 <2 ×2 × × × × × × × × × × × × ×	4 C 4 C 4 C 4 C	
Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Chec Well identification number clea Well covers and locks in good Is the well stand pipe vertically Is the concrete pad and surfac Are soils surrounding the well Is the PVC well casing in good Is these standing water in the	plastic plastic plastic plastic platic  klist:  arly marked? condition and secure? aligned and secure? be seal in good condition? annular space between the	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	no no no no	NaOH           none           HNO3           HNO3    Ye  Ye  Ye  Ye  Ye  Sing?  Ye	12 <2 <2 <2 ×2 × × × × × × × × × × × × ×	4 C 4 C 4 C 4 C	
Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Chec Well identification number clea Well covers and locks in good Is the well stand pipe vertically Is the concrete pad and surfac Are soils surrounding the well Is the PVC well casing in good Is there standing water in the allegence of the standing water in	plastic plastic plastic plastic platic  platic  klist:  arly marked? condition and secure? aligned and secure? be seal in good condition? annular space between the base to provide drainage	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	no no no no	NaOH           none           HNO3           HNO3    Ye  Ye  Ye  Ye  Ye  Ye  Ye  Ye  Ye	12 <2 <2 <2 ×2 × × × × × × × × × × × × ×	4 C	X
Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Chec Well identification number clea Well covers and locks in good Is the well stand pipe vertically Is the concrete pad and surfac Are soils surrounding the well Is the PVC well casing in good	plastic plastic plastic plastic platic  platic  klist:  arly marked? condition and secure? aligned and secure? be seal in good condition? annular space between the base to provide drainage	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	no no no no	NaOH           none           HNO3           HNO3    Ye  Ye  Ye  Ye  Ye  Ye  Ye  Ye  Ye	12 <2 <2 <2 ×2 × × × × × × × × × × × × ×	4 C	
Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Chec Well identification number clea Well covers and locks in good Is the well stand pipe vertically Is the concrete pad and surfac Are soils surrounding the well Is the PVC well casing in good Is there standing water in the a Is the stand pipe vented at the Does the total depth of the we	plastic plastic plastic plastic platic  platic  klist:  arly marked? condition and secure? aligned and secure? de seal in good condition? pad eroded? de condition? annular space between the base to provide drainagell sounded correspond we	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	no no no no	NaOH           none           HNO3           HNO3    Ye  Ye  Ye  Ye  Ye  Ye  Ye  Ye  Ye	12 <2 <2 <2 ×2 × × × × × × × × × × × × ×	4 C	X
Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Chec Well identification number clea Well covers and locks in good Is the well stand pipe vertically Is the concrete pad and surface Are soils surrounding the well Is the PVC well casing in good Is there standing water in the a Is the stand pipe vented at the Does the total depth of the we	plastic plastic plastic plastic plastic platic  klist:  arly marked? condition and secure? caligned and secure? de seal in good condition? pad eroded? de condition? annular space between the base to provide drainagell sounded correspond wevation:  992,42	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	no no no no	NaOH           none           HNO3           HNO3    Ye  Ye  Ye  Ye  Ye  Ye  Ye  Ye  Ye	12 <2 <2 <2 ×2 × × × × × × × × × × × × ×	4 C	X

	EERS, INC.		Ground \	Water Sampling Log			
Date: 4/21,22/ Site Name: Inland Realty Site Location Maryville, MC Personnel: William W	<b>99</b>			Weather: Well Number: Project Number: Evacuation Method	3050	GMW-6D ",005"	D seri
Depth of Well * Depth to Water * Length of Water Column Volume of Water in Well 3X Volume of Water in We	28.65 ft. 4.98 ft. 3.67 ft. 3.9 gal.(s) ell /2 gal.(s)	Water 'X	4" Diame	or: eter Well = 0.163 X L\ eter Well = 0.653 X L\ eter Well = 1.469 X L\	NC		
SA VOIUME OF VValer in VVe	gai.(3)		e removed be Il go dry?	efore sampling Yes	12/2	No 9	gal.(s)
						(	(Other, Specify)
*Measurements taken from	n X Top of	Well Casing		Top of Protective C	asing		
Water parameters:					,		
			pH Read			0	ductivity Readin
after(g	initial /2 / / sal.) /3 / / sal.) /4 D	after safter / after / after / after	indard	7. 2 NA 7. 7 7. 7 7. 5 7. 4 7. 4	after after after after	84 S Stand 1413 S Stand initial	dard //6 10 10 10 10 10 10 10 10 10 10 10 10 10
after / 6 (g		after 1 p	(gal.)	7. Z	after	24	(gal.) <u>473</u>
after / 6 (9 after 2 4 (9)  Water Sample: \( \frac{2}{3} \frac{4}{9} \)  Time Collected: \( \frac{2}{2} \frac{4}{9} \frac{4}{9} \)  Physical Appearance at S  Color Odor  Turbidity (> 100 NTUs)	1319 HexCr 1135; metals		(gal.)  Physica  Color Odor Turbidit	y (> 100 NTU's)		clear no	(gal.) <u>473</u>
after / 6 (g after 2 4 (g) Water Sample: 1/21/99 / 1 Time Collected: 1/22/94 / 2 Physical Appearance at S  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product	1319 HexCr 1135; metals	after 24	(gal.)  Physica  Color Odor Turbidit			Clear none no no	(gal.) _4/3
after / 6 (g after 2 4 (g)  Water Sample: \( \frac{2}{2} \frac{4}{9} \)!  Time Collected: \( \frac{2}{2} \frac{4}{9} \).  Physical Appearance at S  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: C	d, Cr, Hex Cr, CN, Hg, Mn,	after 24	(gal.)  Physica  Color Odor Turbidit Sheen/f	y (> 100 NTU's) Free Product		Clean no	
after / 6 (g after 2 4 (g) Water Sample: 1/21/99 / 1 Time Collected: 1/22/94 / 2 Physical Appearance at S  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product	1310 Hexcr 1135; metals tart Sray funt	Ni, Pb, Zn  # Collected	(gal.)  Physica  Color Odor Turbidit Sheen/f	y (> 100 NTU's) Free Product  d Preservative NaOH	pH	Clean no no no Temp.	
after / 6 (9 after 2 4 (9)  Water Sample: \( \frac{2}{2} \frac{4}{9} \)!  Time Collected: \( \frac{2}{2} \frac{4}{9} \);  Physical Appearance at S  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: C  Container Size 500 ml 500 ml	d, Cr, Hex Cr, CN, Hg, Mn,  Container Type  plastic  plastic	Ni, Pb, Zn  # Collected 1	Physica Color Odor Turbidit Sheen/F	y (> 100 NTU's) Free Product  d Preservative NaOH none	pH 12	Clean no no no Temp. 24 C	
after / 6 (9 after 2 4 (9)  Water Sample: \( \frac{2}{2} \frac{4}{9} \)!  Time Collected: \( \frac{2}{2} \frac{4}{9} \);  Physical Appearance at S  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: C  Container Size 500 ml 500 ml 500 ml	d, Cr, Hex Cr, CN, Hg, Mn,  Container Type  plastic  plastic  plastic	Ni, Pb, Zn  # Collected 1 1 1	Physica  Color Odor Turbidit Sheen/F	y (> 100 NTU's) Free Product  d Preservative NaOH none HNO3	pH 12	Temp. 2 4 C 4 C 4 C	
after / 6 (9 after 2 4 (9)  Water Sample: \( \frac{2}{2} \frac{4}{9} \)!  Time Collected: \( \frac{2}{2} \frac{4}{9} \)!  Physical Appearance at S  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: C  Container Size 500 ml 500 ml	d, Cr, Hex Cr, CN, Hg, Mn,  Container Type  plastic  plastic	Ni, Pb, Zn  # Collected 1	Physica Color Odor Turbidit Sheen/F	y (> 100 NTU's) Free Product  d Preservative NaOH none	pH 12	Clean no no no Temp. 24 C	
after / 6 (9 after 2 4 (9)  Water Sample: \( \frac{2}{2} \frac{4}{9} \)!  Time Collected: \( \frac{2}{2} \frac{4}{9} \);  Physical Appearance at S  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: C  Container Size 500 ml 500 ml 500 ml	d, Cr, Hex Cr, CN, Hg, Mn,  Container Type  plastic  plastic  plastic	Ni, Pb, Zn  # Collected 1 1 1	Physica  Color Odor Turbidit Sheen/F	y (> 100 NTU's) Free Product  d Preservative NaOH none HNO3	pH 12	Temp. 2 4 C 4 C 4 C	
after / 6 (9 after 2 4 (9)  Water Sample: \( \frac{2}{2} \frac{4}{9} \)!  Time Collected: \( \frac{2}{2} \frac{4}{9} \);  Physical Appearance at S  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: C  Container Size 500 ml 500 ml 500 ml	d, Cr, Hex Cr, CN, Hg, Mn,  Container Type  plastic  plastic  plastic	Ni, Pb, Zn  # Collected 1 1 1	Physica  Color Odor Turbidit Sheen/F	y (> 100 NTU's) Free Product  d Preservative NaOH none HNO3	pH 12	Temp. 2 4 C 4 C 4 C	
after / 6 (9 after 2 4 (9)  Water Sample: \( \frac{2}{2} \frac{4}{9} \)!  Time Collected: \( \frac{2}{2} \frac{4}{9} \);  Physical Appearance at S  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: C  Container Size 500 ml 500 ml 500 ml	d, Cr, Hex Cr, CN, Hg, Mn,  Container Type  plastic  plastic  plastic	Ni, Pb, Zn  # Collected 1 1 1	Physica  Color Odor Turbidit Sheen/F	y (> 100 NTU's) Free Product  d Preservative NaOH none HNO3	pH 12	Temp. 2 4 C 4 C 4 C	
after / 6 (9 after 2 4 (9)  Water Sample: \( \frac{2}{2} \frac{4}{9} \)!  Time Collected: \( \frac{2}{2} \frac{4}{9} \);  Physical Appearance at S  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: C  Container Size 500 ml 500 ml 500 ml	d, Cr, Hex Cr, CN, Hg, Mn,  Container Type  plastic  plastic  plastic	Ni, Pb, Zn  # Collected 1 1 1	Physica  Color Odor Turbidit Sheen/F	y (> 100 NTU's) Free Product  d Preservative NaOH none HNO3	pH 12	Temp. 2 4 C 4 C 4 C	
after / 6 (9 after 2 4 (9)  Water Sample: \( \frac{2}{2} \) 4 (9)  Time Collected: \( \frac{2}{2} \) 7 (7)  Physical Appearance at S  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: C  Container Size 500 ml 500 ml 500 ml 1 liter	d, Cr, Hex Cr, CN, Hg, Mn,  Container Type plastic plastic platic	Ni, Pb, Zn  # Collected 1 1 1	Physica  Color Odor Turbidit Sheen/F	y (> 100 NTU's) Free Product  d Preservative NaOH none HNO3	pH 12	Temp. 2 4 C 4 C 4 C	
after / 6 (9 after 2 4 (9)  Water Sample: \( \frac{2}{2} \frac{4}{9} \)!  Time Collected: \( \frac{2}{2} \frac{4}{9} \);  Physical Appearance at S  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: C  Container Size 500 ml 500 ml 500 ml	d, Cr, Hex Cr, CN, Hg, Mn,  Container Type plastic plastic platic	Ni, Pb, Zn  # Collected 1 1 1	Physica  Color Odor Turbidit Sheen/F	y (> 100 NTU's) Free Product  d Preservative NaOH none HNO3	pH 12	Temp. 2 4 C 4 C 4 C	
after / 6 (9 after 2 4 (9)  Water Sample: 1/21/99 / Time Collected: 1/22/94 / Physical Appearance at S  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: C  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity (1)  Well identification number	d, Cr, Hex Cr, CN, Hg, Mn,  Container Type plastic plastic plastic platic  Checklist:	after 3.4  Ni, Pb, Zn  # Collected 1 1 1 1	Physica  Color Odor Turbidit Sheen/F	y (> 100 NTU's) Free Product  d Preservative NaOH none HNO3 HNO3	pH 12 <2 <2 <2	Temp. 2 4 C 4 C 4 C 4 C	Conductiv
after / 6 (9 after 2 4 (9)  Water Sample: 1/21/99 1  Time Collected: 1/22/94  Physical Appearance at S  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: C  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity (1)  Well identification number Well covers and locks in	d, Cr, Hex Cr, CN, Hg, Mn,  Container Type plastic plastic plastic platic  Checklist: r clearly marked?	after 3.4	Physica  Color Odor Turbidit Sheen/F	y (> 100 NTU's) Free Product  d Preservative NaOH none HNO3 HNO3	pH 12 <2 <2 <2	Temp. 2 4 C 4 C 4 C 4 C No No	Conductiv
after / 6 (9 after 2 4 (9)  Water Sample: 1/9/1  Time Collected: 1/2/9/ Physical Appearance at S  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: C  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity (1)  Well identification number Well covers and locks in sign the well stand pipe vertice.	d, Cr, Hex Cr, CN, Hg, Mn,  Container Type plastic plastic plastic platic  Checklist: r clearly marked?	after 3.4	Physica  Color Odor Turbidit Sheen/F	y (> 100 NTU's) Free Product  d Preservative NaOH none HNO3 HNO3  Ye Ye Ye	pH 12 <2 <2 <2	Temp. 2 4 C 4 C 4 C No	Conductiv
after / 6 (9 after 2 4 (9)  Water Sample: 1/9/1  Time Collected: 1/2/94  Physical Appearance at S  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: C  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity (1)  Well identification number Well covers and locks in else the concrete pad and selections.	d, Cr, Hex Cr, CN, Hg, Mn,  Container Type plastic plastic plastic platic  Checklist: r clearly marked?	after 3.4	Physica Color Odor Turbidit Sheen/f  Filtere no no no	y (> 100 NTU's) Free Product  d Preservative NaOH none HNO3 HNO3  Ye Ye Ye Ye	pH 12 <2 <2 <2	Temp. 2 4 C 4 C 4 C 4 C No	Conductiv
after / 6 (9 after 2 4 (9)  Water Sample: 1/21/99 1  Time Collected: 1/22/94  Physical Appearance at S  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: C  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity (1)  Well identification number well covers and locks in set the well stand pipe vert list the concrete pad and some soils surrounding the list he PVC well casing in	d, Cr, Hex Cr, CN, Hg, Mn,  Container Type plastic plastic plastic platic  Checklist:  r clearly marked?	after 3.4	Physica Color Odor Turbidit Sheen/f  Filtere no no no	y (> 100 NTU's) Free Product  d Preservative NaOH none HNO3 HNO3  Ye Ye Ye Ye Ye Ye	pH 12 <2 <2 <2 × × × × × × × × × × × × × × ×	Temp. 2 4 C 4 C 4 C 4 C No	Conductiv
after / 6 (9 after 2 4 (9)  Water Sample: 1/21/99 / 17 (9)  Time Collected: 1/22/94 / 17  Physical Appearance at S  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: C  Container Size 500 ml 500 ml 500 ml 11 iter  Monitoring Well Integrity (10 Well identification number Well covers and locks in 9 Is the well stand pipe vert Is the concrete pad and she she PVC well casing in 1s there standing water in 1s the standing water in 1s there standing water in 1s there standing water in 1s there standing water in 1s the 2 very standing water in 1s the 2 very standing water in 1s the 2 very standing water in 1s very st	d, Cr, Hex Cr, CN, Hg, Mn,  Container Type plastic plastic plastic platic  Checklist: r clearly marked?	after 3.4	Physica  Color Odor Turbidit Sheen/f  Filtere no no no	y (> 100 NTU's) Free Product  d	pH 12 <2 <2 <2 × × × × × × × × × × × × × × ×	Temp.   2 4 C	Conductiv

Date Site Name Inland Realty C	- 17	, INC.		Ground	Water Sampling Log			
Depth of Water Column Volume of Water in Well Volume removed before sampling Did well go dry?  **Measurements taken from  **X** Top of Well Casing    Top of Protective Casing   Top of Protective	Site Name: Inland Realty ( Site Location Maryville, MO				Well Number: Project Number:	3050	GMW-7 " 005"	56°F
*Measurements taken from X Top of Well Casing Top of Protective Casing  Water parameters:    Temperature Reading	Depth to Water * Length of Water Column Volume of Water in Well  3	<b>5./3</b> ft. <b>7.74</b> ft. <b>7.</b> gal.(s)	X Volume	2" Diam 4" Diam 6" Diam	eter Well = 0.163 X L\ eter Well = 0.653 X L\ eter Well = 1.469 X L\ efore sampling	NC NC   <b>2</b> /		
Temperature Reading  4.0 Standard 7.0 Standa	*Measurements taken from	X Top of V	Vell Casing		Top of Protective C	asing		(Other, Specify)
A O Standard   7.0   B4 S Standard   1.0	Water parameters:							
Time Collected:    Physical Appearance at Start	after (gal.) after (gal.) after (gal.) after (gal.) after (gal.) after (gal.)	/	7.0 Sta 10.0 St initial after after after after	ndard ndard andard  (gal.)  (gal.)  (gal.)  (gal.)	4. 0 7. 0 N.A 6.8 7. 1 7. 3 7. 2 6.7	after after after	84 S Stand 1413 S Stand initial initial	dard NA andard ///7@/3°C 37 7 (gal.) 37.5 (gal.) 35.7 (gal.) 35.3 (gal.) 34.3
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr, Hex Cr, CN, Hg, Mn, Ni, Pb, Zn  Container Size Container Type # Collected Filtered Preservative pH Temp. Conductivity  500 ml C/V plastic 1 no NaOH 12/4 C  500 ml Lev plastic 1 no none 4 C  500 ml Lev plastic 1 no NaOH 12/4 C  1 liter plastic 1 no HNO3 <2 4 C  1 liter plastic 1 no HNO3 <2 4 C  1 liter plastic 1 no HNO3 <2 4 C  1 liter plastic 1 no HNO3 <2 4 C  1 liter plastic 1 no HNO3 <2 4 C  1 liter plastic 1 no HNO3 <2 4 C  1 liter plastic 1 no HNO3 <2 4 C  1 liter plastic 1 no HNO3 <2 4 C  1 liter plastic 1 no HNO3 <2 4 C  1 liter plastic 1 no HNO3 <2 4 C  1 liter plastic 1 no HNO3 <2 4 C  1 liter plastic 1 no HNO3 <2 4 C  1 liter plastic 1 no HNO3 <2 4 C  1 liter plastic 1 no HNO3 <2 4 C  1 liter plastic 1 no HNO3 <2 4 C  1 liter plastic 1 no HNO3 <2 4 C  1 liter plastic 1 no HNO3 <2 4 C  1 liter plastic 1 no HNO3 <2 4 C  1 liter plastic 1 no HNO3 <2 4 C  1 liter plastic 1 no HNO3 <2 4 C  1 liter plastic 1 no HNO3 <2 4 C  1 liter plastic 1 no HNO3 <2 4 C  1 liter plastic 1 no HNO3 <2 4 C	The state of the s					1		
Container Size Container Type # Collected Filtered Preservative pH Temp. Conductivity  500 ml CV plastic 1 no NaOH 12 4 C  500 ml Lox plastic 1 no none 4 C  500 ml Lox plastic 1 no HNO3 <2 4 C  1 liter Profest platic 1 no HNO3 <2 4 C  1 liter Profest platic 1 no HNO3 <2 4 C  Monitoring Well Integrity Checklist:  Well identification number clearly marked?  Well covers and locks in good condition and secure?  Is the well stand pipe vertically aligned and secure?  Is the concrete pad and surface seal in good condition?  Are soils surrounding the well pad eroded?  Is the PVC well casing in good condition?  Yes X  No  Is the eventually aligned and surface seal with the page of the provide drainage?  Yes X  No  Is the eventual the page to provide drainage?  Yes X  No  No  No  No  No  No  No  No  No  N	Color Odor Turbidity (> 100 NTUs)	y stains d	i, Pb, Zn	Color Odor Turbidit	y (> 100 NTU's)			
Monitoring Well Integrity Checklist:  Well identification number clearly marked?  Well covers and locks in good condition and secure?  Is the concrete pad and surface seal in good condition?  Are soils surrounding the well pad eroded?  Is the PVC well casing in good condition?  Are standing water in the annular space between the well stand pipe and PVC casing?  Yes  No  No  No  No  No  No  No  No  No  N	Sample Parameters: Cd, Cr, I	Hex Cr, CN, Hg, Mn, N						
Monitoring Well Integrity Checklist:  Well identification number clearly marked?  Well covers and locks in good condition and secure?  Is the well stand pipe vertically aligned and secure?  Is the concrete pad and surface seal in good condition?  Are soils surrounding the well pad eroded?  Is the PVC well casing in good condition?  Yes X  No  No  No  No  No  Step PVC well casing in good condition?  Yes X  No  No  Step PVC well casing in good condition?  Yes X  No  No  No  No  No  No  No  Step PVC well casing in good condition?  Yes X  No  No  Step PVC well casing in good condition?  Yes X  No  No  No  Step PVC well casing in good condition?  Yes X  No  No  No  Step PVC well casing in good condition?  Yes X  No  No  No  No  No  Step PVC well casing in good condition?  Yes X  No  No  No  No  No  No  No  No  No  N			# Collected	Filtere	d Preservative	pН	Temp.	Conductivity
Monitoring Well Integrity Checklist:  Well identification number clearly marked?  Well covers and locks in good condition and secure?  Is the well stand pipe vertically aligned and secure?  Is the concrete pad and surface seal in good condition?  Are soils surrounding the well pad eroded?  Is the PVC well casing in good condition?  Is there standing water in the annular space between the well stand pipe and PVC casing?  Yes  No  No  State standing water in the annular space between the well stand pipe and PVC casing?  Yes  No  No  No  No  No  No  No  No  No  N	Container Size 500 ml	Container Type plastic	1	no	NaOH		2 4 C	Conductivity
Well identification number clearly marked?  Well covers and locks in good condition and secure?  Is the well stand pipe vertically aligned and secure?  Yes No  Is the concrete pad and surface seal in good condition?  Are soils surrounding the well pad eroded?  Is the PVC well casing in good condition?  Yes No  No  No  Is there standing water in the annular space between the well stand pipe and PVC casing?  Yes No	Container Size 500 ml C/V 500 ml //ex	Container Type plastic plastic	1	no no	NaOH none	12	2 4 C 4 C	Conductivity
Well identification number clearly marked?  Well covers and locks in good condition and secure?  Is the well stand pipe vertically aligned and secure?  Yes No  Is the concrete pad and surface seal in good condition?  Are soils surrounding the well pad eroded?  Is the PVC well casing in good condition?  Yes No  No  No  Is there standing water in the annular space between the well stand pipe and PVC casing?  Yes No	Container Size 500 ml C/V 500 ml Hex 500 ml	Container Type plastic plastic plastic	1 1 1	no no no	NaOH none HNO3	<2	4 C 4 C	Conductivity
Well identification number clearly marked?  Well covers and locks in good condition and secure?  Is the well stand pipe vertically aligned and secure?  Yes No  Is the concrete pad and surface seal in good condition?  Are soils surrounding the well pad eroded?  Is the PVC well casing in good condition?  Yes No  No  No  Is there standing water in the annular space between the well stand pipe and PVC casing?  Yes No	Container Size 500 ml C/V 500 ml Hex 500 ml	Container Type plastic plastic plastic	1 1 1	no no no	NaOH none HNO3	<2	4 C 4 C	Conductivity
Well identification number clearly marked?  Well covers and locks in good condition and secure?  Is the well stand pipe vertically aligned and secure?  Yes No  Is the concrete pad and surface seal in good condition?  Are soils surrounding the well pad eroded?  Is the PVC well casing in good condition?  Yes No  No  No  No  State estanding water in the annular space between the well stand pipe and PVC casing?  Yes No	Container Size  500 ml  500 ml  44ex 500 ml	Container Type plastic plastic plastic	1 1 1	no no no	NaOH none HNO3	<2	4 C 4 C	Conductivity
NOTES: Top of casing elevation: 994.42	Container Size  500 ml  500 ml  500 ml  500 ml	Container Type plastic plastic plastic	1 1 1	no no no	NaOH none HNO3	<2	4 C 4 C	Conductivity

O'BRIEN & GERE ENGINEER	RS. INC.		Ground V	Vater Sampling Log			
116.4 6	۵		Ciodila V			1_	
Date: 4/2/13/9 Site Name: Inland Realty	7			Weather: Well Number:	over	GMW-9	lainy
Site Location Maryville, MO				Project Number:	3050	" 005"	
Personnel: William Wrigh	t			Evacuation Method		iles	
Depth of Well *	29.97 ft.	Water V	olume /ft. for	r:			
Depth to Water *	4.25ft.	×		ter Well = 0.163 X L			
	25.72 ft.			ter Well = 0.653 X L			
Volume of Water in Well  3X Volume of Water in Well	4. Z gal.(s)	Ĺ	6" Diame	ter Well = 1.469 X L	WC		
3A Volume of VValer in VVeil	<u>/<b>⋧</b>⋅ 6</u> gal.(s)	Volume Did well		fore sampling Yes	15/	25 No	gal.(s)
							(Other, Specify)
*Measurements taken from	X Top of V	Vell Casing		Top of Protective (	Casing		
Water parameters:							
Temperatu	re Reading		pH Readi	ina		Conc	ductivity Reading
		4.0 Stan	dard	4.0			- 1
		7.0 Stan 10.0 Sta		7.0		84 S Stand 1413 S St	
_	initial / ⊋ . /	initial	nuaru	6.1		initial	753
after 5 (gal.)	13.2	after 5	(gal.)	6.5	afte	_	(gal.) 80 6
after / Q (gal.)	13.7	after 10	(gal.)	6.6	50000.00000		(gal.) 78/
after <b>15</b> (gal.)	13.8	after 15	(gal.)	6.6	afte	15	(gal.) 767
after <u>2 0</u> (gal.)	13.5	after 20	(gal.)	6.2	afte	r 20	(gal.) 896
after <b>_2</b> 5 (gal.)	17.5	after 2.5	(gal.)	6.4	afte	725	(gal.) 86/
Water Sample: 4/z//95: /33 Time Collected: 4/zz/95:09	25. Mal la						
	- 171e ja 15					_	
Physical Appearance at Start	⊒.		Physical	Appearance at Sam			
Physical Appearance at Start	⊒.		Physical Color	Appearance at Sam		Lt yellow	tint
Physical Appearance at Start  Color  Odor	llowish gray		Color Odor			t yellow	Hint-
Physical Appearance at Start  Color  Odor  Turbidity (> 100 NTUs)	⊒.		Color Odor Turbidity	(> 100 NTU's)		t yellow	tint
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs)	⊒.		Color Odor Turbidity			t yellow no he no	tint
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product	⊒.	i, Pb, Zn	Color Odor Turbidity	(> 100 NTU's)		it yellow no he no	tint
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C	Ilowish gray  In the cr. CN, Hg, Mn, N  Container Type	# Collected	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ree Product  Preservative	<i>5/c</i> 3	Temp.	Conductivity
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml	r, Hex Cr, CN, Hg, Mn, N  Container Type plastic	# Collected	Color Odor Turbidity Sheen/Fr Filtered	(> 100 NTU's) ree Product  Preservative NaOH	<i>5/c</i> 3	Temp.	
Color Odor Furbidity (> 100 NTUs) Sheen/Free Product  Container Size 500 ml 500 ml	r, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic	# Collected 1	Color Odor Turbidity Sheen/Fr Filtered no	(> 100 NTU's) ree Product  Preservative NaOH none	<i>Sli</i> 3 <i>k</i>	Temp. 2 4 C 4 C	
Color Odor Furbidity (> 100 NTUs) Sheen/Free Product  Container Size 500 ml	r, Hex Cr, CN, Hg, Mn, N  Container Type plastic	# Collected	Color Odor Turbidity Sheen/Fr Filtered	(> 100 NTU's) ree Product  Preservative NaOH	<i>5/c</i> 3	Temp.	
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Container Size 500 ml 500 ml	r, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity Sheen/Fr  Filtered no no	(> 100 NTU's) ree Product  Preservative NaOH none HNO3	pH 1:	Temp. 2 4 C 4 C 4 C	
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml	r, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity Sheen/Fr  Filtered no no	(> 100 NTU's) ree Product  Preservative NaOH none HNO3	pH 1:	Temp. 2 4 C 4 C 4 C	
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml	r, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity Sheen/Fr  Filtered no no	(> 100 NTU's) ree Product  Preservative NaOH none HNO3	pH 1:	Temp. 2 4 C 4 C 4 C	
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml	r, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity Sheen/Fr  Filtered no no	(> 100 NTU's) ree Product  Preservative NaOH none HNO3	pH 1:	Temp. 2 4 C 4 C 4 C	
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml	r, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic platic	# Collected 1 1 1	Color Odor Turbidity Sheen/Fr  Filtered no no	(> 100 NTU's) ree Product  Preservative NaOH none HNO3	pH 1:	Temp. 2 4 C 4 C 4 C	
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check	Illowish gray  r, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic plastic plastic platic	# Collected 1 1 1 1 1	Color Odor Turbidity Sheen/Fr Filtered no no no	Preservative NaOH none HNO3 HNO3	pH 1.	Temp. 2 4 C 4 C 4 C 4 C	Conductivity
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check  Well identification number clea	r, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic plastic plastic plastic arly marked?	# Collected 1 1 1 1 1 1	Color Odor Turbidity Sheen/Fr Filtered no no no	(> 100 NTU's) ree Product  Preservative NaOH none HNO3 HNO3	pH 1.	Temp. 2 4 C 4 C 4 C 4 C	Conductivity
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clea Well covers and locks in good is the well stand pipe vertically	r, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic platic  platic  sklist:  arly marked?	# Collected 1 1 1 1 1	Color Odor Turbidity Sheen/Fr  Filtered no no no	Preservative NaOH none HNO3 HNO3 PNO3 PNO3 PNO3 PNO3 PNO3 PNO3 PNO3 P	pH 1 1 <2 <2 <2 × × × × × × × × × × × × × × ×	Temp. 2 4 C 4 C 4 C 4 C	Conductivity
Color Ddor Turbidity (> 100 NTUs) Sheen/Free Product  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clea Well covers and locks in goods the well stand pipe vertically	r, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic platic  platic  sklist:  arly marked?	# Collected 1 1 1 1 1	Color Odor Turbidity Sheen/Fr  Filtered no no no	Preservative NaOH none HNO3 HNO3 PNO3 PNO3 PNO3 PNO3 PNO3 PNO3 PNO3 P	pH 1 1 <2 <2 <2 × × × × × × × × × × × × × × ×	Temp. 2 4 C 4 C 4 C 4 C	Conductivity
Color Curbidity (> 100 NTUs) Sheen/Free Product  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clear Well covers and locks in goods the well stand pipe vertically sthe concrete pad and surface	r, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic platic  platic  sklist:  arly marked? condition and secure?	# Collected 1 1 1 1 1 1	Color Odor Turbidity Sheen/Fr  Filtered no no no	(> 100 NTU's) ree Product  Preservative NaOH none HNO3 HNO3  Ye- Ye- Ye- Ye- Ye-	pH 1 1 <2 <2 <2 × × × × × × × × × × × × × × ×	Temp. 2 4 C 4 C 4 C 4 C	Conductivity
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clea Well covers and locks in good s the well stand pipe vertically s the concrete pad and surface Are soils surrounding the well s the PVC well casing in good	r, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic platic  platic  cklist:  arly marked?  arly marked?  aligned and secure?  aligned and secure?  ce seal in good condition?  pad eroded?	# Collected 1 1 1 1 1 1	Color Odor Turbidity Sheen/Fr  Filtered no no no	Preservative NaOH none HNO3 HNO3 Yee Yee	pH 1 1 <2 <2 <2 <> X X X S S S S S S S S S S S S S S S S	Temp. 2 4 C 4 C 4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clear Well covers and locks in good is the well stand pipe vertically is the concrete pad and surface. Sheep Standing water in the standing water in the	r, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic plastic platic  arly marked? condition and secure? displayed and secure? despend and secure? annular space between the	# Collected 1 1 1 1 1 1 e well stand pipe a	Color Odor Turbidity Sheen/Fr  Filtered no no no no	Preservative NaOH None HNO3 HNO3 Pee Product  Yee	pH 1 1 <2 <2 <2 <> X	Temp. 2 4 C 4 C 4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clear Well covers and locks in good as the well stand pipe vertically as the PVC well casing in good as the PVC well casing in good as the PVC well casing in good as the stand pipe vented at the stand pipe vented at the	Container Type plastic plastic plastic plastic plastic plastic condition and secure?	# Collected 1 1 1 1 1 1 e well stand pipe a	Color Odor Turbidity Sheen/Fr  Filtered no no no no no	Preservative NaOH None HNO3 HNO3 Pee Sing? Yeservative	pH 1 1 <2 <2 <2 < X X X X X X X X X X X X X X	Temp. 2 4 C 4 C 4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clea Well covers and locks in good s the well stand pipe vertically s the concrete pad and surface Are soils surrounding the well s the PVC well casing in good s there standing water in the s the stand pipe vented at the Does the total depth of the well	r, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic plastic platic  cklist:  arly marked?  condition and secure?  aligned and secure?  ce seal in good condition? pad eroded?  d condition?  annular space between the base to provide drainage Il sounded correspond with	# Collected 1 1 1 1 1 1 e well stand pipe a?	Color Odor Turbidity Sheen/Fr  Filtered no no no no no	Preservative NaOH None HNO3 HNO3 Pee Sing? Yeservative	pH 1 1 <2 <2 <2 < X X X X X X X X X X X X X X	Temp. 2 4 C 4 C 4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clear Well covers and locks in good is the well stand pipe vertically is the concrete pad and surface Are soils surrounding the well is the PVC well casing in good is the stand pipe vented at the stand pipe vented	Container Type plastic plastic plastic plastic plastic plastic plastic platic  arly marked? condition and secure? displastic and secure? displastic condition? annular space between the base to provide drainage ill sounded correspond with evation:  997.34	# Collected 1 1 1 1 1 1 1 e well stand pipe a ?	Color Odor Turbidity Sheen/Fr  Filtered no no no no no	Preservative NaOH None HNO3 HNO3 Pee Sing? Yeservative	pH 1 1 <2 <2 <2 < X X X X X X X X X X X X X X	Temp. 2 4 C 4 C 4 C 4 C	Conductivity

BRIEN & GERE ENGINEER	S, INC.		Ground Wate	er Sampling Log			
ate: 4/2 0/9	9		\^/	eather:			
ite Name: Inland Realty			١٨.	ell Number:		PZ-1	
te Location Maryville, MO			_	-	3050	".005"	
ersonnel: William Wright				vacuation Method:			
epth of Well *	20.32 ft.	Contract Con	olume /ft. for:				
epth to Water *	6.40ft.	X		Well = 0.163 X LW			
ength of Water Column	ft.			Well = 0.653 X LW			
olume of Water in Well  Volume of Water in Well	gal.(s)		6" Diameter \	Well = 1.469 X LW	/C		
C volume of vvaler in vveil	gal.(s)	Volume r	emoved before	sampling			gal.(s)
		Did well		Yes			
							(Other, Specify)
Measurements taken from	X Top of Well	l Casing	To	op of Protective Ca	sing		
/ater parameters:							
	a Pooding		pH Reading			Conc	ductivity Reading
Temperatur	e reading	4.0 Stand				30110	Labarity (Caumy
		7.0 Stand				84 S Stand	dard
		10.0 Star				1413 S St	andard
	initial	initial				initial	
after (gal.)		after	(gal.)		after		(gal.)
after(gal.)		after	(gal.)		after		(gal.)
after(gal.)					after		(gal.)
after(gal.)		after					(gal.)
after (gal.)		after	(gal.)		after		(gal.)
ime Collected:							
				pearance at Sampl		]	
			Color	pearance at Sampl			
Color Odor			Color Odor				
Color			Color	100 NTU's)			
olor dor urbidity (> 100 NTUs) heen/Free Product ample Parameters: Groun	d Water Elevation Only		Color Odor Turbidity (> Sheen/Free	100 NTU's) Product			
olor dor urbidity (> 100 NTUs) neen/Free Product			Color Odor Turbidity (>	100 NTU's)			
olor dor urbidity (> 100 NTUs) heen/Free Product ample Parameters: Groun	d Water Elevation Only		Color Odor Turbidity (> Sheen/Free	100 NTU's) Product			
olor dor urbidity (> 100 NTUs) heen/Free Product ample Parameters: Groun	d Water Elevation Only		Color Odor Turbidity (> Sheen/Free	100 NTU's) Product			
olor dor urbidity (> 100 NTUs) heen/Free Product ample Parameters: Groun	d Water Elevation Only		Color Odor Turbidity (> Sheen/Free	100 NTU's) Product			
color Odor Ourbidity (> 100 NTUs) Cheen/Free Product Cample Parameters: Groun	d Water Elevation Only		Color Odor Turbidity (> Sheen/Free	100 NTU's) Product			
Color Odor Furbidity (> 100 NTUs) Sheen/Free Product Cample Parameters: Groun	d Water Elevation Only		Color Odor Turbidity (> Sheen/Free	100 NTU's) Product			
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Groun	d Water Elevation Only		Color Odor Turbidity (> Sheen/Free	100 NTU's) Product			
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Cample Parameters: Groun  Container Size	d Water Elevation Only  Container Type		Color Odor Turbidity (> Sheen/Free	100 NTU's) Product			
Color Odor Odor Ourbidity (> 100 NTUs) Cheen/Free Product Cample Parameters: Groun Container Size  Monitoring Well Integrity Check	d Water Elevation Only  Container Type	# Collected	Color Odor Turbidity (> Sheen/Free	100 NTU's) Product  Preservative	рН	Temp.	Conductivity
Color Odor Odor Ourbidity (> 100 NTUs) Cheen/Free Product Cample Parameters: Groun Container Size  Monitoring Well Integrity Check  Well identification number clea	d Water Elevation Only  Container Type  klist:	# Collected	Color Odor Turbidity (> Sheen/Free	100 NTU's) Product  Preservative  Yes	рН	Temp.	Conductivity
Color Odor Odor Ourbidity (> 100 NTUs) Cheen/Free Product Cample Parameters: Groun Container Size  Monitoring Well Integrity Check Well identification number clean Vell covers and locks in good	d Water Elevation Only  Container Type  klist: rly marked? condition and secure?	# Collected	Color Odor Turbidity (> Sheen/Free	100 NTU's) Product  Preservative  Yes Yes	рН	Temp.	Conductivity
Color Odor Odor Ourbidity (> 100 NTUs) Cheen/Free Product  Cample Parameters: Groun  Container Size  Monitoring Well Integrity Check Well identification number clea Well covers and locks in good Is the well stand pipe vertically	d Water Elevation Only  Container Type  klist: rly marked? condition and secure? aligned and secure?	# Collected	Color Odor Turbidity (> Sheen/Free	100 NTU's) Product  Preservative  Yes Yes Yes	рН	Temp.	Conductivity
Color Odor Odor Ourbidity (> 100 NTUs) Cheen/Free Product  Cample Parameters: Groun  Container Size  Monitoring Well Integrity Check Well identification number clea Well covers and locks in good s the well stand pipe vertically s the concrete pad and surface	d Water Elevation Only  Container Type  klist: rly marked? condition and secure? aligned and secure? e seal in good condition?	# Collected	Color Odor Turbidity (> Sheen/Free	100 NTU's) Product  Preservative  Yes Yes Yes Yes Yes	рН	Temp.	Conductivity
Color Odor Odor Ourbidity (> 100 NTUs) Cheen/Free Product  Cample Parameters: Groun  Container Size  Monitoring Well Integrity Check Well identification number clea Nell covers and locks in good s the well stand pipe vertically s the concrete pad and surfac	d Water Elevation Only  Container Type  klist: rly marked? condition and secure? aligned and secure? e seal in good condition? pad eroded?	# Collected	Color Odor Turbidity (> Sheen/Free	100 NTU's) Product  Preservative  Yes Yes Yes Yes Yes Yes	рН	Temp.	Conductivity
Color Odor Odor Ourbidity (> 100 NTUs) Cheen/Free Product  Cample Parameters: Groun  Container Size  Monitoring Well Integrity Check Well identification number clea Vell covers and locks in good so the well stand pipe vertically so the PVC well casing in good	d Water Elevation Only  Container Type  klist:  rly marked?  condition and secure?  aligned and secure?  e seal in good condition?  pad eroded?  condition?	# Collected	Color Odor Turbidity (> Sheen/Free	100 NTU's) Product  Preservative  Yes Yes Yes Yes Yes Yes Yes Yes	рН	Temp.	Conductivity
Monitoring Well Integrity Check Vell identification number clea Vell covers and locks in good so the well stand pipe vertically to the Concrete pad and surface to the PVC well casing in good to the PVC well casing in good to the restanding water in the a	klist: rly marked?	# Collected	Color Odor Turbidity (> Sheen/Free	100 NTU's) Product  Preservative  Yes Yes Yes Yes Yes Yes Yes Yes Yes Y	рН	Temp.  No No No No No No No	Conductivity
Monitoring Well Integrity Check Vell identification number clea Vell covers and locks in good is the well stand pipe vertically is the concrete pad and surface Are soils surrounding the well is the PVC well casing in good is the event of the stand pipe vertically is the concrete pad and surface is the PVC well casing in good is the stand pipe vented at the is the stand pipe vented at the in the stand pipe vented at the integration.	d Water Elevation Only  Container Type  klist:  rly marked?  condition and secure?  aligned and secure?  e seal in good condition?  pad eroded?  condition?  annular space between the wase to provide drainage?	# Collected	Color Odor Turbidity (> Sheen/Free	100 NTU's) Product  Preservative  Yes Yes Yes Yes Yes Yes Yes Yes Yes Y	рН	Temp.  No	Conductivity
Color Odor Odor Orbidity (> 100 NTUs) Cheen/Free Product  Cample Parameters: Groun  Container Size  Monitoring Well Integrity Check Well identification number clea Well covers and locks in good s the well stand pipe vertically s the concrete pad and surface Are soils surrounding the well as the PVC well casing in good s there standing water in the as the stand pipe vented at the Does the total depth of the well Colors the total dept	klist:  rly marked?  condition and secure?  aligned and secure?  e seal in good condition?  pad eroded?  condition?  annular space between the wase to provide drainage? I sounded correspond with conditions	# Collected	Color Odor Turbidity (> Sheen/Free	100 NTU's) Product  Preservative  Yes Yes Yes Yes Yes Yes Yes Yes Yes Y	рН	Temp.  No	Conductivity
Color Odor Ourbidity (> 100 NTUs) Cheen/Free Product Cample Parameters: Groun Container Size  Monitoring Well Integrity Check Vell identification number clea Vell covers and locks in good is the well stand pipe vertically is the concrete pad and surface Are soils surrounding the well part in the area of the stand pipe vented at the colors the total depth of the well NOTES: Top of casing elections and content of the well part to Ground Content to Ground Conte	container Type  Container Type  klist:  rly marked?  condition and secure?  aligned and secure?  e seal in good condition?  pad eroded?  condition?  annular space between the v base to provide drainage? I sounded correspond with cevation:  1001.66	# Collected	Color Odor Turbidity (> Sheen/Free	100 NTU's) Product  Preservative  Yes Yes Yes Yes Yes Yes Yes Yes Yes Y	рН	Temp.  No	Conductivity

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O.RKIEN &	GERE ENGINEER	KS, INC.			Ground W	ater Sampling Log	]			
Date:	4/20/99					Weather:				
Site Name:	Inland Realty				_	Well Number:		PZ-2		
	n Maryville, MO					Project Number:	3050	".005"		
Personnel:	William Wright	t				Evacuation Metho	od:		***************************************	
Securi Sale Pagnassina										
Depth of We Depth to Wa		20.32 ft. <b>6.23</b> ft.		Water Vo	olume /ft. for:	er Well = 0.163 X	1 \\( \( \) \( \)			
	/ater Column	6.63 It.		^		er Well = 0.163 X				
	Vater in Well	gal.(s)				er Well = 1.469 X				
3X Volume	of Water in Well	gal.(s)							_	
					emoved before			NI-	_gal.(s)	
				Did well g	go ary?	Y	es	No	)	
						,			(Other, Spec	cify
*Measureme	ents taken from	X	op of Well Cas	ing		Top of Protective	Casing			
Water parar	meters:									
									7	
	Temperatui	re Reading		4.0 Stand	pH Readin	ng		Cor	nductivity Rea	din
				7.0 Stand				84 S Sta	ndard	
				10.0 Star				1413 S S		
		initial		initial				initial		
afte afte	(3/		afte		_(gal.)		after		_(gal.)	
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afte	(3)		afte		_ (gal.)		after		(gal.)	
afte			afte	r	(gal.)		after		(gal.)	
Color					Color					
Odor Turbidity (>				_ _	Odor	> 100 NTU's)				
Odor				- - -	Odor					
Odor Turbidity (> Sheen/Free Sample Para	Product ameters: Groun	nd Water Elevatio	-	ollected	Odor Turbidity ( Sheen/Fre	e Product		Tamp	Conduc	tiva
Odor Turbidity (> Sheen/Free Sample Para	Product	nd Water Elevatio	-		Odor Turbidity (		рН	Temp.	Conduc	:tivi
Odor Turbidity (> Sheen/Free Sample Para	Product ameters: Groun	-	-	collected	Odor Turbidity ( Sheen/Fre	e Product	рН	Temp.	Conduc	:tivi
Odor Turbidity (> Sheen/Free Sample Para	Product ameters: Groun	-	-	collected	Odor Turbidity ( Sheen/Fre	e Product	рН	Temp.	Conduc	:tivi
Odor Turbidity (> Sheen/Free Sample Para	Product ameters: Groun	-	-	ollected	Odor Turbidity ( Sheen/Fre	e Product	рН	Temp.	Conduc	:tivi
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Odor Turbidity (> Sheen/Free Sample Para	Product ameters: Groun	-	-	collected	Odor Turbidity ( Sheen/Fre	e Product	рН	Temp.	Conduc	etivi
Odor Turbidity (> Sheen/Free Sample Para	Product ameters: Groun	-	-	collected	Odor Turbidity ( Sheen/Fre	e Product	рН	Temp.	Conduc	:tivi
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Odor Turbidity (> Sheen/Free	Product ameters: Groun	Container T	-	ollected	Odor Turbidity ( Sheen/Fre	e Product	рН	Temp.	Conduc	:tivi
Odor Turbidity (> Sheen/Free  Sample Para  Cor	Product  ameters: Groun  ntainer Size   Well Integrity Check	Container T	ype # C		Odor Turbidity ( Sheen/Fre	Preservative				etivi
Odor Turbidity (> Sheen/Free Sample Para Cor  Monitoring V	Product  ameters: Groun  ntainer Size   Well Integrity Check cation number clea	Container T	ype # C		Odor Turbidity ( Sheen/Fre	Preservative	es	No		:tivi
Odor Turbidity (> Sheen/Free  Sample Para  Cor  Monitoring V  Well identifit  Well covers	Product  ameters: Groun  ntainer Size  Well Integrity Check cation number clea	Container T  klist: rly marked? condition and sec	ype # C		Odor Turbidity ( Sheen/Fre	Preservative	eses	_ No		>tivi
Odor Turbidity (> Sheen/Free Sample Para Cor  Monitoring V Well identifit Well covers Is the well s	Product  ameters: Groun  ntainer Size  Well Integrity Check cation number clea and locks in good tand pipe vertically	klist: rly marked?condition and secualigned and secual	ure?		Odor Turbidity ( Sheen/Fre	Preservative	es es es	_ No No No		:tivi
Odor Turbidity (> Sheen/Free Sample Para Cor  Monitoring V Well identific Well covers Is the well si Is the concr. Are soils sui	Product  ameters: Groun  ntainer Size   Nell Integrity Check cation number clea and locks in good tand pipe vertically ete pad and surfac rrounding the well p	klist: rly marked?condition and secule seal in good corpad eroded?	ure?		Odor Turbidity ( Sheen/Fre	Preservative  Preservative  Y  Y  Y  Y  Y	es es es es	No No No No		;tivi
Odor Turbidity (> Sheen/Free Sample Para Cor  Monitoring V Well identific Well covers Is the well so the concruence of t	Product  ameters: Groun  ntainer Size   Vell Integrity Check cation number clea and locks in good tand pipe vertically ete pad and surfac rrounding the well p well casing in good	klist: rly marked? condition and secule seal in good corpad eroded? condition?	ure?re?		Odor Turbidity ( Sheen/Fre	Preservative  Y  Y  Y  Y  Y  Y  Y	es es es es	No No No No No		itivi
Odor Turbidity (> Sheen/Free  Sample Para  Cor  Monitoring V  Well identific  Well covers Is the well s' Is the concr  Are soils sui Is the PVC V  Is there star	Product  ameters: Groun  Intainer Size  Well Integrity Check  cation number clea  and locks in good  tand pipe vertically ete pad and surfac  rrounding the well p  well casing in good  ding water in the a	klist:  rly marked?  condition and secule seal in good corpad eroded?  condition?	ure?re?dition?veen the well st	and pipe ar	Odor Turbidity ( Sheen/Fre	Preservative  Preservative  Y  Y  Y  Y  Y  Y  Y  Y  Y  Y  Y  Y  Y	es es es es es	No No No No No No		:tivi
Odor Turbidity (> Sheen/Free  Sample Para  Cor  Monitoring V  Well identific  Well covers Is the well s' Is the concr.  Are soils sui Is the PVC V  Is there stand	Product  ameters: Groun  Intainer Size  Well Integrity Check  cation number clea  and locks in good  tand pipe vertically ete pad and surfac  rrounding the well p well casing in good  ding water in the a pipe vented at the	klist:  rly marked?  condition and secule seal in good corpad eroded?  condition?  annular space betwo	ure?re?dition?veen the well strainage?	and pipe ar	Odor Turbidity ( Sheen/Fre	Preservative  Preservative  Y  Y  Y  Y  Y  Y  Y  Y  Y  Y  Y  Y  Y	es es es es es es	No No No No No No		ztivi
Odor Turbidity (> Sheen/Free  Sample Para  Cor  Monitoring V  Well identific  Well covers Is the well s' Is the concr.  Are soils sui Is the PVC V  Is there stand	Product  ameters: Groun  Intainer Size  Well Integrity Check  cation number clea  and locks in good  tand pipe vertically ete pad and surfac  rrounding the well p  well casing in good  ding water in the a	klist:  rly marked?  condition and secule seal in good corpad eroded?  condition?  annular space betwo	ure?re?dition?veen the well strainage?	and pipe ar	Odor Turbidity ( Sheen/Fre	Preservative  Preservative  Y  Y  Y  Y  Y  Y  Y  Y  Y  Y  Y  Y  Y	es es es es es es	No No No No No No		ztivi
Odor Turbidity (> Sheen/Free  Sample Para  Cor  Monitoring V  Well identific  Well covers Is the well s' Is the concr.  Are soils sui Is the PVC V  Is there stand	Aveil Integrity Check cation number clea and locks in good tand pipe vertically ete pad and surfac rrounding the well g well casing in good anding water in the a pipe vented at the tal depth of the well	klist:  rly marked?  condition and secular and secular space and secular condition?  annular space betwhere to provide del sounded corresponded correspo	ure?re?dition?veen the well strainage?ond with origina	and pipe ar	Odor Turbidity ( Sheen/Fre	Preservative  Preservative  Y  Y  Y  Y  Y  Y  Y  Y  Y  Y  Y  Y  Y	es es es es es es	No No No No No No		ztivi

BRIEN & GERE ENGINEER	RS, INC.		Ground W	ater Sampling Lo	3		
Date: 4/20/99				Weather:			
Site Name: Inland Realty				Well Number:		PZ-3	
Site Location Maryville, MO			_	Project Number:	3050	".005"	
Personnel: William Wrigh	t		-	Evacuation Metho	oa:		
Depth of Well * Depth to Water * Length of Water Column Volume of Water in Well 3X Volume of Water in Well	20,28 ft. 6.62 ft. ft. gal.(s) gal.(s)	Water Vol	4" Diamete	er Well = 0.163 X er Well = 0.653 X er Well = 1.469 X	LWC		
		Volume re Did well go	emoved befo o dry?		es	No _	gal.(s)
						(	Other, Specify)
*Measurements taken from	X Top of Well Ca	sing		Top of Protective	Casing		
Water parameters:							
Tomporati	ire Reading		pH Readin			Conc	uctivity Reading
remperatu	re Reading	4.0 Standa		9		Conc	delivity Reading
		7.0 Standa				84 S Stand	
	initial	10.0 Stand	dard			1413 S Sta	andard
after (gal.)	aft		(gal.)		after		gal.)
after (gal.)	aft		_ (gal.)		after		gal.)
after (gal.)	aft	er	_(gal.)		after		gal.)
after(gal.)	aft		_(gal.)		after		gal.)
after(gal.)	aft	er	_ (gal.)		after		[gal.)
Physical Appearance at Start  Color  Odor  Turbidity (> 100 NTUs)			Color Odor Turbidity (	ppearance at Sar			
Sheen/Free Product			Sheen/Fre	e Product			
	nd Water Elevation Only					,	
		Collected	Filtered	Preservative	pН	Temp.	Conductivity
Sample Parameters: Grou		Collected	Filtered	Preservative	рН	Temp.	Conductivity
Sample Parameters: Grou		Collected	Filtered	Preservative	рН	Temp.	Conductivity
Sample Parameters: Grou		Collected	Filtered	Preservative	рН	Temp.	Conductivity
Sample Parameters: Grou		Collected	Filtered	Preservative	рН	Temp.	Conductivity
Sample Parameters: Grou		Collected	Filtered	Preservative	рН	Temp.	Conductivity
Sample Parameters: Grou		Collected	Filtered	Preservative	рН	Temp.	Conductivity
Sample Parameters: Grou		Collected	Filtered	Preservative	рН	Temp.	Conductivity
Sample Parameters: Grou		Collected	Filtered	Preservative	рН	Temp.	Conductivity
Sample Parameters: <b>Grou</b> l Container Size	Container Type #	Collected	Filtered	Preservative	pH	Temp.	Conductivity
Sample Parameters: Ground Container Size	Container Type #					Temp.	Conductivity
Sample Parameters: Ground Container Size  Monitoring Well Integrity Check Well identification number cle	Container Type #				/es	No	
Sample Parameters: Ground Container Size  Monitoring Well Integrity Check Well identification number cleans well covers and locks in good	Container Type #  cklist: arly marked?				/es	_ No No	
Sample Parameters: Ground Container Size  Monitoring Well Integrity Check Well identification number cleic Well covers and locks in good is the well stand pipe vertically	Container Type #  cklist: arly marked? d condition and secure? y aligned and secure?				/es /es /es	_ No No No	
Sample Parameters: Ground Container Size  Monitoring Well Integrity Check Well identification number cleewell covers and locks in good is the well stand pipe vertically is the concrete pad and surface.	Container Type #  cklist: arly marked? d condition and secure? y aligned and secure? ce seal in good condition?				/es /es /es	No No No	
Sample Parameters: Ground Container Size  Monitoring Well Integrity Check Well identification number clease Well covers and locks in good is the well stand pipe vertically is the concrete pad and surface Are soils surrounding the well	cklist:  arly marked?				'es 'es 'es 'es	No No No	
Sample Parameters: Ground Container Size  Monitoring Well Integrity Check Well identification number cleated with the Well covers and locks in good is the well stand pipe vertically is the concrete pad and surface soils surrounding the well is the PVC well casing in good	cklist:  arly marked?				/es /es /es /es /es	No No No	
Container Size  Container Size  Monitoring Well Integrity Check Well identification number clei Well covers and locks in good Is the well stand pipe vertically Is the concrete pad and surfal Are soils surrounding the well Is the PVC well casing in good Is there standing water in the Is the stand pipe vented at the	cklist:  arly marked? d condition and secure? y aligned and secure? pad eroded? d condition? pad eroded? annular space between the well se base to provide drainage?	stand pipe ar	nd PVC cas	ing?	/es /es /es /es /es /es /es	No No No No No No	
Container Size  Container Size  Monitoring Well Integrity Check Well identification number clei Well covers and locks in good Is the well stand pipe vertically Is the concrete pad and surfal Are soils surrounding the well Is the PVC well casing in good Is there standing water in the Is the stand pipe vented at the	cklist:  arly marked?	stand pipe ar	nd PVC cas	ing?	/es /es /es /es /es /es /es	No No No No No No	
Container Size  Container Size  Monitoring Well Integrity Check Well identification number cle Well covers and locks in good Is the well stand pipe vertically Is the concrete pad and surfal Are soils surrounding the well Is the PVC well casing in good Is there standing water in the Is the stand pipe vented at the Does the total depth of the we	container Type #  cklist:  arly marked?	stand pipe ar	nd PVC cas	ing?	/es /es /es /es /es /es /es	No No No No No No	
Container Size  Container Size  Monitoring Well Integrity Check Well identification number clea Well covers and locks in good Is the well stand pipe vertically Is the concrete pad and surfate Are soils surrounding the well Is the PVC well casing in good Is there standing water in the Is the stand pipe vented at the Does the total depth of the well NOTES:  Top of casing e	cklist:  arly marked? d condition and secure? y aligned and secure? pad eroded? d condition? pad eroded? annular space between the well se base to provide drainage? ell sounded correspond with original sounded correspond with original sevation:	stand pipe ar	nd PVC cas	ing?	/es /es /es /es /es /es /es	No No No No No No	

Date:	GERE ENGINEER	RS, INC.			Ground W	Vater Sampling	Log		
Date:		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			Or Garria V		203		
Site Name:	1/20/9 9 Inland Realty					Weather: Well Number:		PZ-4	
	n Maryville, MO				_	Project Number			
Personnel:	William Wrigh	it			_	Evacuation Me			
Depth of We Depth to Wa		20.14 ft. 8.34 ft.		Water Vo	olume /ft. for	:: :er Well = 0.163			
	ater Column	6.39 It.		^	are territorial	er Well = 0.163			
Volume of W	Vater in Well	gal.(s				er Well = 1.469			
3X Volume o	of Water in Well	gal.(s	s)	Volume re	emoved befo	ore sampling			gal.(s)
				Did well g		ore sampling	Yes	No	
									/Oth Cif
*Measureme	ents taken from	X	Top of Well C	asing		Top of Protect	tive Casing		(Other, Specify
\A/atar param	motoro:								
Water paran		<u> </u>							
	Temperatu	ire Reading		100:	pH Readir	ng		Cor	ductivity Readir
				4.0 Stand 7.0 Stand				84 S Star	ndard
				10.0 Star				1413 S S	
00		initial		initial				initial	
after				ter	_ (gal.)		afte		(gal.)
aπei aftei	r(gal.) r (gal.)			ter ter	_ (gal.) _ (gal.)		afte afte		(gal.) (gal.)
after				ter	(gal.)		afte		(gal.)
after	r(gal.)		af	ter	(gal.)		afte	r	(gal.)
Color Odor	100 NTUs)				Color Odor Turbidity (	(> 100 NTU's)			
Turbidity (>					Sheen/Fre	ee Product			
Sheen/Free	Product	nd Water Elev	ation Only						
Sheen/Free Sample Para	Product	nd Water Elev		Collected	Filtered	Preservati	ve pH	Temp.	Conductiv
Sheen/Free Sample Para	Product ameters: Groun			Collected	Filtered	Preservativ	ve pH	Temp.	Conductiv
Sheen/Free Sample Para	Product ameters: Groun			Collected	Filtered	Preservativ	ve pH	Temp.	Conductiv
Sheen/Free Sample Para	Product ameters: Groun			Collected	Filtered	Preservativ	ve pH	Temp.	Conductiv
Sheen/Free Sample Para	Product ameters: Groun			Collected	Filtered	Preservativ	ve pH	Temp.	Conductiv
Sheen/Free Sample Para	Product ameters: Groun			Collected	Filtered	Preservativ	ve pH	Temp.	Conductiv
Sheen/Free Sample Para	Product ameters: Groun			Collected	Filtered	Preservati	ve pH	Temp.	Conductiv
Sheen/Free Sample Para Con	Product  ameters: Groun  ntainer Size	Containe		Collected	Filtered	Preservativ	ve pH	Temp.	Conductiv
Sheen/Free Sample Para Con Monitoring V	Product  ameters: Groun  itainer Size  Vell Integrity Chec	Containe	er Type #						
Sheen/Free Sample Para Con Monitoring V Well identific	Product  ameters: Groun  Italiner Size  Vell Integrity Chec	Containe	er Type #				Yes	No	
Sheen/Free Sample Para Con Monitoring V Well identific Well covers	Product  ameters: Grour  Itainer Size  Vell Integrity Chec cation number clea	Containe	er Type #				Yes	_ No	
Sheen/Free Sample Para Con Monitoring V Well identific Well covers Is the well st	Product  ameters: Grour  Itainer Size  Vell Integrity Chec cation number clea and locks in good tand pipe vertically	Containe  cklist:  arly marked?  condition and a aligned and se	er Type # secure?				Yes Yes	_ No No No	
Sheen/Free Sample Para Con  Monitoring V Well identific Well covers Is the well st Is the concre Are soils sur	Product  ameters: Ground intainer Size  Vell Integrity Checonation number clean and locks in good tand pipe vertically ete pad and surfactorrounding the well	Containe  cklist:  arly marked?  condition and a aligned and so see seal in good pad eroded?	secure? ecure? condition?				Yes Yes Yes Yes	No No No No No	
Sheen/Free  Sample Para  Con  Monitoring V  Well identific  Well covers Is the well st Is the concre  Are soils sur Is the PVC v	Product  ameters: Ground intainer Size  Vell Integrity Checonation number clean and locks in good tand pipe vertically ete pad and surfactorrounding the well well casing in good with the statement of the surfactor of the surfac	contained condition and condition and condition and condition and condition and condition?	secure? ecure? condition?				Yes Yes Yes Yes Yes	No N	
Sheen/Free  Sample Para  Con  Well identific Well covers Is the well st Is the concre Are soils sur Is the PVC v Is there stan	Product  ameters: Ground intainer Size  Vell Integrity Checonation number clean and locks in good at and pipe vertically ete pad and surfactor in the surfactor ounding the well casing in good and ing water in the surfactor in t	Containe  cklist:  arly marked?  condition and a aligned and so see seal in good pad eroded?  d condition?  annular space	secure?	stand pipe ar	nd PVC cas	ing?	Yes Yes Yes Yes Yes Yes	No N	
Sheen/Free  Sample Para  Con  Well identific Well covers Is the well st Is the contre Are soils sur Is the PVC v Is there stan Is the stand	Product  ameters: Ground intainer Size  Vell Integrity Checonation number clean and locks in good tand pipe vertically ete pad and surfactorrounding the well well casing in good with the statement of the surfactor of the surfac	Containe  cklist:  arly marked?  condition and valigned and so ce seal in good pad eroded?  d condition?  annular space base to provide	secure?	stand pipe ar	nd PVC cas	ing?	Yes Yes Yes Yes Yes Yes Yes	No N	

D'BRIEN & GERE ENGINEER	RS. INC.		Ground W	ater Sampling Log			
Date: /O/28/99 Site Name: Inland Realty Site Location Maryville, MO Personnel: William Wright	_			Weather: Well Number: Project Number: Evacuation Method	part 1 3050 d: Bac	GMW-25'	y 60°F
Depth of Well * Depth to Water * Length of Water Column Volume of Water in Well BX Volume of Water in Well	21.75 ft.  10.11 ft.  11.64t.  2.6 gal.(s)  22.8 gal.(s)	х	4" Diamet 6" Diamet emoved befo	er Well = 0.163 X L\ er Well = 0.653 X L\ er Well = 1.469 X L\ ore sampling	WC	ZNo	gal.(s)
Measurements taken from	X Top of W	Vell Casing		Top of Protective (	Casing		(Other, Specify)
Nater parameters:							
after (gal.) after (gal.) after (gal.) after (gal.) after (gal.) Water Sample: Time Collected:	initial 58.4 S6.7 S6.8	4.0 Stand 7.0 Stand 10.0 Stand initial after after after after after	dard	7.0 G 7.0 G 10.38 6.38 6.38 6.28	after after after after after	84 S Stan 1413 S St initial	
	3 - 4			Appearance at Sam	jpling	a Bus	_
Physical Appearance at Start  Color  Odor	Pear		Color	Appearance at Sam	pling C	Bear	<u> </u>
Color Odor Turbidity (> 100 NTUs)	ione		Color Odor Turbidity	(> 100 NTU's)	pling C	lear my	7.5
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product		i, Pb, Zn	Color Odor Turbidity		pling C	leur 1980 1980 1980	7.5
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C	r, Hex Cr, CN, Hg, Mn, Ni		Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ee Product	no no	lear 18	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product	ion	i, Pb, Zn  # Collected 1	Color Odor Turbidity	(> 100 NTU's) ee Product	pH	2 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml	r, Hex Cr, CN, Hg, Mn, Ni  Container Type plastic plastic	# Collected	Color Odor Turbidity Sheen/Fre Filtered	(> 100 NTU's) ee Product  Preservative NaOH none	pH 12	2 4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml	r, Hex Cr, CN, Hg, Mn, Ni  Container Type plastic plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity Sheen/Fr	Preservative NaOH none HNO3	pH 12	2 4 C 4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml	r, Hex Cr, CN, Hg, Mn, Ni  Container Type plastic plastic	# Collected	Color Odor Turbidity Sheen/Fre Filtered	(> 100 NTU's) ee Product  Preservative NaOH none	pH 12	2 4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml	r, Hex Cr, CN, Hg, Mn, Ni  Container Type plastic plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity Sheen/Fr	Preservative NaOH none HNO3	pH 12	2 4 C 4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml	r, Hex Cr, CN, Hg, Mn, Ni  Container Type plastic plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity Sheen/Fr	Preservative NaOH none HNO3	pH 12	2 4 C 4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml	r, Hex Cr, CN, Hg, Mn, Ni  Container Type plastic plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity Sheen/Fr	Preservative NaOH none HNO3	pH 12	2 4 C 4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml	r, Hex Cr, CN, Hg, Mn, Ni  Container Type plastic plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity Sheen/Fr	Preservative NaOH none HNO3	pH 12	2 4 C 4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml	r, Hex Cr, CN, Hg, Mn, Ni  Container Type plastic plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity Sheen/Fr	Preservative NaOH none HNO3	pH 12	2 4 C 4 C 4 C	Conductivity

O'BRIEN & GERE ENGINEER	RS. INC.		Ground Wa	ater Sampling Log			
/ /- /-	•			Discovering Contract			550F
Date: 10/28/9°	7			Weather:	ovel	all	59
Site Name: Inland Realty			_	Well Number:	3050	".005"	
Site Location Maryville, MO Personnel: William Wright	•			Project Number: Evacuation Method			
reisonnei. <u>vviiliam vviigin</u>	· ·		_	LVacuation Method	20	170	
D = = 41= = £1A/= II #	22.00.4	Materia	luma Ht for				
Depth of Well *	32.06 ft.	X X	lume /ft. for:	er Well = 0.163 X LV	NC		
Depth to Water * Length of Water Column	2 7 16 ft	^		er Well = 0.653 X LV			
Volume of Water in Well	3.8 gal.(s)			er Well = 1.469 X LV			
3X Volume of Water in Well	11. 4 gal.(s)				,	7	
		Volume re	emoved before	ore sampling	/		gal.(s)
		Did well g	o dry?	Yes	s	No_	$\swarrow$
							(Other, Specify)
*Measurements taken from	X Top of V	Vell Casing		Top of Protective C	Casing		(Ottler, Specify)
Wedsarements taken nom		von ouomg		, , , , , , , , , , , , , , , , , , , ,			
Water parameters:		I			1		
Temperatu	re Reading	[	pH Readin	00		Conc	ductivity Reading
Temperatu	ire Reading	4.0 Stand		4. ()		00110	ductivity reading
		7.0 Stand		7.01	ĺ	84 S Stan	dard NA
		10.0 Stan		NY		1413 S St	andard/000550
//	initial 52.	initial		6.05		initial	795
after (gal.)	54.7	after	_(gal.)	6012	after		(gal.) 79/
after 6 (gal.)	54.2	after 8	_ (gal.)	6.1	after		(gal.) 485
after / ) (gal.) after (gal.)	JT.L	after / Z	_ (gal.) _ (gal.)	0.1/	after		(gal.) 795 (gal.)
after (gal.)		after	_ (gal.) _ (gal.)		after		(gal.)
G. (3)		1.1.5	_ (, _ / , _ /	0071154		.40	G 1385
Water Sample:	7)	Tarhidity	, neg	1014	4ga	10	88a/ 30.0
Time Collected: // 0	<u></u>		milia	08.0	254	135	_
Physical Appearance at Start			Physical A	Appearance at Sam		1	
Physical Appearance at Start			1 Hysical 7	appearance at Carri	piirig	_	
	1				1 +	7 11 1	
Color	lear		Color		slight	thy clou	edy
Odor	pone		Odor		sligh	thy clou	dy
Odor Turbidity (> 100 NTUs)	lear nonf o (8.0)		Odor Turbidity (	> 100 NTU's)	slight	thy cloud	edy
Odor Turbidity (> 100 NTUs)	lear pont (8.0)		Odor Turbidity (	> 100 NTU's) ee Product	slight no	thy cloud	edy
Odor Turbidity (> 100 NTUs)	lear yong o (8.0)		Odor Turbidity (		slight	thy cloud	edy
Odor Turbidity (> 100 NTUs) Sheen/Free Product	Jean Jone (8.0) er, Hex Cr, CN, Hg, Mn, N	i, Pb, Zn	Odor Turbidity (		slight no	thy clou	edy
Odor Turbidity (> 100 NTUs) Sheen/Free Product	Container Type	# Collected	Odor Turbidity (	ee Product Preservative	slight no no	thy clouds 3 5	Conductivity
Odor Furbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml	Container Type plastic	# Collected	Odor Turbidity ( Sheen/Fre Filtered no	Preservative NaOH		4 C	Conductivity
Odor Furbidity (> 100 NTUs) Sheen/Free Product  Cample Parameters: Cd, C  Container Size  500 ml  500 ml	Container Type plastic plastic	# Collected 1	Odor Turbidity ( Sheen/Fre Filtered no no	Preservative NaOH none	12	4 C 4 C	Conductivity
Odor Furbidity (> 100 NTUs) Sheen/Free Product  Cample Parameters: Cd, C  Container Size  500 ml  500 ml  500 ml	Container Type plastic plastic plastic	# Collected 1 1 1	Odor Turbidity ( Sheen/Fre Filtered no no	Preservative NaOH none HNO3	<2	4 C 4 C 4 C	Conductivity
Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml	Container Type plastic plastic	# Collected 1	Odor Turbidity ( Sheen/Fre Filtered no no	Preservative NaOH none	12	4 C 4 C	Conductivity
Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml	Container Type plastic plastic plastic	# Collected 1 1 1	Odor Turbidity ( Sheen/Fre Filtered no no	Preservative NaOH none HNO3	<2	4 C 4 C 4 C	Conductivity
Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml	Container Type plastic plastic plastic	# Collected 1 1 1	Odor Turbidity ( Sheen/Fre Filtered no no	Preservative NaOH none HNO3	<2	4 C 4 C 4 C	Conductivity
Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml	Container Type plastic plastic plastic	# Collected 1 1 1	Odor Turbidity ( Sheen/Fre Filtered no no	Preservative NaOH none HNO3	<2	4 C 4 C 4 C	Conductivity
Odor Furbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml	Container Type plastic plastic plastic	# Collected 1 1 1	Odor Turbidity ( Sheen/Fre Filtered no no	Preservative NaOH none HNO3	<2	4 C 4 C 4 C	Conductivity
Container Size 500 ml 500 ml 500 ml	Container Type plastic plastic plastic	# Collected 1 1 1	Odor Turbidity ( Sheen/Fre Filtered no no	Preservative NaOH none HNO3	<2	4 C 4 C 4 C	Conductivity
Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml	Container Type plastic plastic plastic plastic platic	# Collected 1 1 1	Odor Turbidity ( Sheen/Fre Filtered no no	Preservative NaOH none HNO3	<2	4 C 4 C 4 C	Conductivity
Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Check	Container Type plastic plastic plastic plastic platic cklist:	# Collected 1 1 1 1 1	Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3	12 <2 <2 <2	4 C 4 C 4 C 4 C	
Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number cle	Container Type plastic plastic plastic plastic platic  cklist:  arly marked?	# Collected 1 1 1 1 1	Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3 HNO3	12 <2 <2 <2 <2	4 C 4 C 4 C 4 C	
Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number cleice Well covers and locks in good	Container Type plastic plastic plastic plastic platic  cklist:  arly marked?	# Collected 1 1 1 1 1	Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3 HNO3	12 <2 <2 <2 <2 ×2	4 C 4 C 4 C 4 C	
Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clee Well covers and locks in good Is the well stand pipe vertically	Container Type plastic plastic plastic plastic platic  cklist:  arly marked?	# Collected 1 1 1 1 1	Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3 HNO3	12 <2 <2 <2 <2 S S S S S S S S S S S S S	4 C 4 C 4 C 4 C	
Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clee Well covers and locks in good Is the well stand pipe vertically Is the concrete pad and surface	Container Type plastic plastic plastic plastic platic  cklist:  arly marked?	# Collected 1 1 1 1 1 1 2 7	Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3 HNO3  Ye Ye Ye Ye	12   <2   <2   <2   <2	4 C 4 C 4 C 4 C	
Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clee Well covers and locks in good Is the well stand pipe vertically Is the concrete pad and surfar Are soils surrounding the well	Container Type plastic plastic plastic plastic platic  cklist:  arly marked?	# Collected 1 1 1 1 1 1 2 7	Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3 HNO3  Ye Ye Ye Ye Ye Ye	12   <2   <2   <2   <2	4 C 4 C 4 C 4 C	
Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clea Well covers and locks in good Is the well stand pipe verticalla Is the Concrete pad and surface soils surrounding the well Is the PVC well casing in good Is there standing water in the	Container Type plastic plastic plastic plastic plastic platic  cklist:  arly marked? d condition and secure? y aligned and secure? to e seal in good condition' l pad eroded? d condition? annular space between the	# Collected  1 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1	Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3 HNO3  Ye	12   <2   <2   <2   <2   <   <2   <   <	4 C 4 C 4 C 4 C	
Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clea Well covers and locks in good Is the well stand pipe verticalla Are soils surrounding the well Is the PVC well casing in good Is there standing water in the Is the stand pipe vented at the	Container Type plastic plastic plastic plastic plastic platic  cklist:  arly marked? d condition and secure? y aligned and secure? to e seal in good condition' l pad eroded? d condition? annular space between the base to provide drainage	# Collected  1 1 1 1 1 1 2 4 1 1 1 1 1 1 1 1 1 1 1	Odor Turbidity ( Sheen/Free  Filtered no no no no and PVC case	Preservative NaOH none HNO3 HNO3  Ye	12   <2   <2   <2   <2   <	4 C 4 C 4 C 4 C	
Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number cle Well covers and locks in good Is the well stand pipe verticall Is the concrete pad and surface Are soils surrounding the well Is the PVC well casing in good	Container Type plastic plastic plastic plastic plastic platic  cklist:  arly marked? d condition and secure? y aligned and secure? to e seal in good condition' l pad eroded? d condition? annular space between the base to provide drainage	# Collected  1 1 1 1 1 1 2 4 1 1 1 1 1 1 1 1 1 1 1	Odor Turbidity ( Sheen/Free  Filtered no no no no and PVC case	Preservative NaOH none HNO3 HNO3  Ye	12   <2   <2   <2   <2   <	4 C	
Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clea Well covers and locks in good Is the well stand pipe vertically the concrete pad and surfaxers are soils surrounding the well Is the PVC well casing in good Is there standing water in the Is the stand pipe vented at the Does the total depth of the well	Container Type plastic plastic plastic plastic plastic platic  cklist:  arly marked?	# Collected  1 1 1 1 1 1 **The stand pipe a se?***  **The well stand pipe a se?**  **The well comparison of the stand pipe a se?**  **The well stand pipe a se?**  **The stand pipe a se?**  **The well stand pipe a se.**  **The well stand pipe a se.*	Odor Turbidity ( Sheen/Free  Filtered no no no no and PVC case	Preservative NaOH none HNO3 HNO3  Ye	12   <2   <2   <2   <2   <	A C A C A C A C A C No No No No No No No No	
Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clean Well covers and locks in good Is the well stand pipe verticallallal the concrete pad and surfal Are soils surrounding the well Is the PVC well casing in good Is there standing water in the Is the stand pipe vented at the Does the total depth of the well NOTES: Top of casing elements.	Container Type plastic plastic plastic plastic plastic plastic platic  cklist:  arly marked?	# Collected  1 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1	Odor Turbidity ( Sheen/Free  Filtered no no no no and PVC case	Preservative NaOH none HNO3 HNO3  Ye	12   <2   <2   <2   <2   <	A C A C A C A C A C No No No No No No No No	
Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, C  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clean Well covers and locks in good Is the well stand pipe verticallallal she concrete pad and surfal Are soils surrounding the well Is the PVC well casing in good Is there standing water in the Is the stand pipe vented at the Does the total depth of the well NOTES: Top of casing elements.	Container Type plastic plastic plastic plastic plastic plastic platic  cklist:  arly marked?	# Collected  1 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1	Odor Turbidity ( Sheen/Free  Filtered no no no no and PVC case	Preservative NaOH none HNO3 HNO3  Ye	12   <2   <2   <2   <2   <	A C A C A C A C A C No No No No No No No No	

	RS, INC.		Ground W	ater Sampling Log			
ate: (0/28/9 9 te Name: Inland Realty te Location Maryville, MO william Wright	- t		- - -	Weather: Well Number: Project Number: Evacuation Method	3050 241	GMW-3 ".005" -€ √	
epth of Well * epth to Water * ength of Water Column olume of Water in Well K Volume of Water in Well	18.50 ft. 6.68 ft. 7.7 gal.(s) 7.7 gal.(s)	x	4" Diamet 6" Diamet emoved bef	er Well = 0.163 X LV er Well = 0.653 X LV er Well = 1.469 X LV ore sampling	vc vc _24	/ No	gal.(s)
Measurements taken from	X Top of W	ell Casing		Top of Protective C	asing		(Other, Specify)
/ater parameters: Temperatu	ire Reading	4.0 Stand 7.0 Stand 10.0 Stand	dard	3.98 7.01 NH		84 S Sta	nductivity Reading  ndard  NA Standard  NA TOTAL
after (gal.) after (gal.) after (gal.) after (gal.) after (gal.) after (gal.)	initial 69.0 39.2 58.8	after	(gal.) (gal.) (gal.) (gal.) (gal.)	5.60 6.24 6.25	after after after after	initial 14	(gal.) /45 (gal.) /425 (gal.) /425 (gal.) /4/8 (gal.) (gal.)
urbidity (> 100 NTUs) // heen/Free Product //	lear onf one	/	Color Odor Turbidity	Appearance at Sam (> 100 NTU's) ee Product	oling  Classical Control Control  No. 100 P.	Sear one one one	
Container Size	Cr, Hex Cr, CN, Hg, Mn, Ni Container Type	# Collected	Filtered	Preservative	рН	Temp.	Conductivity
500 ml	plastic	1	no	NaOH	12	4 C	
500 ml	plastic	1	no	none	<2	4 C	-
500 ml 1 liter	plastic	1	no	HNO3 HNO3	<2	4 C	

	S. INC.		Ground	Water Sampling Log			
Date: /0/28/9* Site Name: Inland Realty  Manualla Mo	Ź			Weather: Well Number: Project Number:	3050	Hy Cles GMW-3S ".005"	u 70°F
Site Location Maryville, MO Personnel: William Wright				Evacuation Meth		ailer	
Depth of Well * Depth to Water * Length of Water Column Volume of Water in Well Volume of Water in Well	23.61 ft. 9.63 ft. 3.98 ft. 2.3 gal.(s) gal.(s)	X	4" Diame 6" Diame	eter Well = 0.163 X eter Well = 0.653 X eter Well = 1.469 X efore sampling	LWC LWC	gal.	(s)_
		Did we	ll go dry?	Y	es	No U	ner, Specify)
Measurements taken from	X Top of W	ell Casing		Top of Protective	Casing	(0.1	.o., oposy,
Nater parameters:	1				ſ		
Temperatur	re Reading			3.99 7.0/		84 S Standard	ivity Reading  d WA ard/305 @
after $\frac{2.5}{5.0}$ (gal.)	101.13 59.3	initial after 3.3	2 (gal.)	6.15	afte	r <u> </u>	1) 1218
after <u>7 , 5 (gal.)</u> after (gal.) after (gal.)	59.7	after 7 🚄 after after	(gal.) (gal.) (gal.)	<u> </u>	after after		l.)
Vater Sample: Fime Collected: /5/	0	Tarkid	ly: Rey	1:002 1. 1. 2.70	ofte	12.5 suf 5.0 saf	129
Physical Appearance at Start	7		Dhysics	Appearance at Sa	malina	7.55 ml	108
	•				_	-6-01	
Odor Turbidity (> 100 NTUs)	ear ond ono			y (> 100 NTU's)	no	none	4)
Odor Turbidity (> 100 NTUs) Sheen/Free Product	r, Hex Cr, CN, Hg, Mn, Ni,	Pb, Zn	Odor Turbidity	y (> 100 NTU's) Free Product	<u>no</u>	non	4)
Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size	Hex Cr, CN, Hg, Mn, Ni, Container Type	Pb, Zn # Collected	Odor Turbidit Sheen/F	ree Product	no pH	Temp.	Conductivity
Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size 500 ml	Container Type plastic	# Collected	Odor Turbidity Sheen/f	d Preservative		2 4 C	Conductivity
Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size	Container Type	# Collected	Odor Turbidith Sheen/f	ree Product			Conductivity
Odor Furbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size  500 ml  500 ml	Container Type plastic plastic	# Collected 1	Odor Turbidity Sheen/f	d Preservative NaOH none	12	2 4 C 4 C	Conductivity
Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size 500 ml 500 ml 500 ml	Container Type plastic plastic plastic	# Collected 1 1	Odor Turbidity Sheen/f	d Preservative NaOH none HNO3	<2	2 4 C 4 C 4 C	Conductivity
Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size 500 ml 500 ml 500 ml	Container Type plastic plastic plastic	# Collected 1 1	Odor Turbidity Sheen/f	d Preservative NaOH none HNO3	<2	2 4 C 4 C 4 C	Conductivity
Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size 500 ml 500 ml 500 ml	Container Type plastic plastic plastic	# Collected 1 1	Odor Turbidity Sheen/f	d Preservative NaOH none HNO3	<2	2 4 C 4 C 4 C	Conductivity
Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size 500 ml 500 ml 500 ml	Container Type plastic plastic plastic	# Collected 1 1	Odor Turbidity Sheen/f	d Preservative NaOH none HNO3	<2	2 4 C 4 C 4 C	Conductivity
Odor Furbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size 500 ml 500 ml 500 ml	Container Type plastic plastic plastic	# Collected 1 1	Odor Turbidity Sheen/f	d Preservative NaOH none HNO3	<2	2 4 C 4 C 4 C	Conductivity
Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size 500 ml 500 ml 1 liter	Container Type plastic plastic plastic plastic platic	# Collected 1 1	Odor Turbidity Sheen/f	d Preservative NaOH none HNO3	<2	2 4 C 4 C 4 C	Conductivity
Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size 500 ml 500 ml 10 liter  Monitoring Well Integrity Chec  Well identification number clea Well covers and locks in good	Container Type plastic plastic plastic plastic platic  klist:  platic	# Collected 1 1 1 1 1	Odor Turbidity Sheen/f	d Preservative NaOH none HNO3 HNO3	<2 <2 <2	2 4 C 4 C 4 C 4 C	
Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Chec Well identification number clea Well covers and locks in good ls the well stand pipe vertically ls the concrete pad and surface	Container Type plastic plastic plastic plastic platic  platic  klist:  arly marked?	# Collected 1 1 1 1 1	Odor Turbidity Sheen/f	d Preservative NaOH none HNO3 HNO3	//es //es //es //es //es //es //es //es	2 4 C 4 C 4 C 4 C	
Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Chec  Well identification number clea Well covers and locks in good Is the well stand pipe vertically Is the concrete pad and surface Are soils surrounding the well	Container Type plastic plastic plastic plastic platic  platic  klist:  arly marked? condition and secure? aligned and secure? te seal in good condition?. pad eroded?	# Collected 1 1 1 1 1	Odor Turbidity Sheen/f	d Preservative NaOH none HNO3 HNO3	/es //es //es //es //es //es //es //es	No N	
Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Chec Well identification number clea Well covers and locks in good Is the well stand pipe vertically Is the concrete pad and surface	Container Type plastic plastic plastic plastic plastic platic  platic  klist:  arly marked? condition and secure? aligned in good condition? pad eroded? arnular space between the	# Collected 1 1 1 1 1 e well stand pip	Filtered no	d Preservative NaOH none HNO3 HNO3	/es	NO N	

Depth of Well * 36.86 ft.	O'BRIEN & GERE ENG	SINEERS, INC.		Ground Wa	ater Sampling Log			
after (gal) after	. /	1= 5				10.44	10.5	7,05
Site Location Maryville. MÖ Project Number: 305, 20,95° Personnet: William Wright: Evacuation Method Depth of Well and Wright: Evacuation Method Depth of Well and Wright: Evacuation Method Depth of Well and Method Depth o	1 1 -1					mai	GMW-3D	uny 101
Depth of Well * 36.86 ft.				_				
Seph to Water Column	Personnel: William	Wright		-	Evacuation Method		ler	
Seph to Water Column								
Length of Water Column (Notwoord Water in Well (Notwoo	Depth of Well *	<u>36.66</u> ft.						
Active of Water in Well XX Volume of Water in Water in Well XX Volume of Water in Water in Well XX Volume of Water in Wa	Depth to Water *	9.43ft.	X					
Volume removed before sampling Ves No		<del>(*1. 7.*</del>						
Measurements taken from X Top of Well Casing Top of Protective Casing (Other, Specify)  Water parameters:  Temperature Reading		1 3		O Diamete	21 VVCII - 1.400 X EV			
Measurements taken from X Top of Well Casing Top of Protective Casing (Other, Specify)  Water parameters:  Temperature Reading 4.0 Standard 7.0 Standard 1.0 Standard 1.1 Stan		9 , 1				14		
Measurements taken from   X   Top of Well Casing   Top of Protective Casing			Did well g	o dry?	Yes		No_	
Measurements taken from   X   Top of Well Casing   Top of Protective Casing								(Other, Specify)
Temperature Reading  A U Standard  7.0 Standard  1.0 Standard  1.13 S Standard  1.413 S Standard  1.41	*Measurements taken f	rom X Top of	Well Casing		Top of Protective C	asing		
Temperature Reading  A U Standard  7.0 Standard  1.0 Standard  1.13 S Standard  1.413 S Standard  1.41	Water parameters:							
## A D Standard ## J To Standard ## J J To Standard ## J J J J J J J J J J J J J J J J J J	vvater parameters.							
To Standard	Tem	nperature Reading			g		Cond	ductivity Reading
after (gal)					503		84 S Stand	dard NA
after (gal.) after					NA			
after \$3 (gal) after (gal) aft		311/	initial		6,3/		initial	1004
after (gal.) after					6.15			7777
after (gal.) after			122		10.14	1		
After (gal.)  Water Sample: Time Collected:	6							
Physical Appearance at Start  Color Odor Odor Odor Odor Samy Sheen/Free Product  Container Size Container I plastic 1 no NaOH 12 4 C 500 ml plastic 1 no none 4 C 500 ml plastic 1 no HNO3 <2 4 C 1 liter platic 1 no HNO3 <2 4 C 1 liter platic 1 no HNO3 <2 4 C  Stee well identification number clearly marked? Well covers and locks in good condition? Stee the well stand pipe vertically aligned and secure? Stee well stand pipe vertically aligned and secure? Stee Stee Stee Stee Stee Stee Stee Stee	after	(gal.)	after			after		(gal.)
Physical Appearance at Start  Color Odor Odor Odor Odor Samy Sheen/Free Product  Container Size Container I plastic 1 no NaOH 12 4 C 500 ml plastic 1 no none 4 C 500 ml plastic 1 no HNO3 <2 4 C 1 liter platic 1 no HNO3 <2 4 C 1 liter platic 1 no HNO3 <2 4 C  Stee well identification number clearly marked? Well covers and locks in good condition? Stee the well stand pipe vertically aligned and secure? Stee well stand pipe vertically aligned and secure? Stee Stee Stee Stee Stee Stee Stee Stee	Water Sample:		1. 1. OA	ratio	0.02 9	45 2	26_	
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Container Size Container Type # Collected Filtered Preservative Preservative  Container Size Container Type # Collected Filtered Preservative Preservative  PH Temp. Conductivity  500 ml plastic 1 no NaOH 12 4 C 500 ml plastic 1 no NaOH 12 4 C 1 liter Platic 1 no HNO3 2 4 C  1 liter Platic 1 no HNO3 2 4 C  Monitoring Well Integrity Checklist:  Well identification number clearly marked? Well covers and locks in good condition and secure? Yes No Is the well stand pipe vertically aligned and secure? Yes No Is the concrete pad and surface seal in good condition? Step No Is the PVC well casing in good condition? Is the vell casing in good condition? Is the vell casing in good condition? Is the stand pipe ventically aligned and secure? Yes No Is the stand pipe ventically aligned and secure? Yes No Is the PVC well casing in good condition? Is the rest raining water in the annular space between the well stand pipe and PVC casing? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the sta	Time Collected:	1610	Justicaly	· The	9.	0-	22	
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Container Size Container Type # Collected Filtered Preservative Preservative  Container Size Container Type # Collected Filtered Preservative Preservative  PH Temp. Conductivity  500 ml plastic 1 no NaOH 12 4 C 500 ml plastic 1 no NaOH 12 4 C 1 liter Platic 1 no HNO3 2 4 C  1 liter Platic 1 no HNO3 2 4 C  Monitoring Well Integrity Checklist:  Well identification number clearly marked? Well covers and locks in good condition and secure? Yes No Is the well stand pipe vertically aligned and secure? Yes No Is the concrete pad and surface seal in good condition? Step No Is the PVC well casing in good condition? Is the vell casing in good condition? Is the vell casing in good condition? Is the stand pipe ventically aligned and secure? Yes No Is the stand pipe ventically aligned and secure? Yes No Is the PVC well casing in good condition? Is the rest raining water in the annular space between the well stand pipe and PVC casing? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the stand pipe vented at the base to provide drainage? Yes No Is the sta		101-1	, ,	Dhusiasl		5_/	2.5	
Odor Turbidity (> 100 NTUs) Sheen/Free Product  Cantainer Size Container Type Somi plastic 1 no NaOH 12 4 C 500 ml plastic 1 no none 4 C 500 ml plastic 1 no HNO3 <2 4 C 1 liter platic 1 liter  Diatic 1 no HNO3 <2 4 C  Sheen/Free Product  Monitoring Well Integrity Checklist:  Well identification number clearly marked?  Well covers and locks in good condition?  Steen Well stand pipe vertically aligned and secure?  Steen Secure Product  No Is the event stand pipe vertically aligned and secure?  Steen Secure Product  No Is the event stand pipe vertically aligned and secure?  Steen Secure Product  No Is the event stand pipe vertically aligned and secure?  Steen Secure Product  No Is the event stand pipe vertically aligned and secure?  Steen Secure Product  No Is the event stand pipe vertically aligned and secure?  Yes No Is the event stand pipe vertically aligned and secure?  Yes No Is the event stand pipe vertically aligned and secure?  Yes No Is the event stand pipe vertically aligned and secure?  Yes No Is the stand pipe vertically aligned and secure?  Yes No Is the stand pipe vertically aligned and secure?  Yes No Is the stand pipe vertically aligned and secure?  Yes No Is the stand pipe vertically aligned and secure?  Yes No Is the stand pipe vertically aligned and secure?  Yes No Is the stand pipe vertically aligned and secure?  Yes No No Is the stand pipe vertically aligned and secure?  Yes No	Physical Appearance a	l Start					1	
Turbidity (> 100 NTU's) Sheen/Free Product  Name		_		1 Hybrodia	Appoarance at earth	Jiiiig	_	
Sheen/Free Product    Container Size   Container Type   # Collected   Filtered   Preservative   pH   Temp.   Conductivity	Color	Cem		Color	,ppodramos at camp		lea	
Container Size Container Type # Collected Filtered Preservative pH Temp. Conductivity  500 ml plastic 1 no NaOH 12 4 C  500 ml plastic 1 no none 4 C  500 ml plastic 1 no HNO3 <2 4 C  1 liter platic 1 no HNO3 <2 4 C  1 liter platic 1 no HNO3 <2 4 C  Well identification number clearly marked?  Well covers and locks in good condition and secure?  Well stand pipe vertically aligned and secure?  Is the well stand pipe vertically aligned and secure?  Yes No  Is the concrete pad and surface seal in good condition?  Are soils surrounding the well pad eroded?  Is the PVC well casing in good condition?  Yes No  Is the PVC well casing in good condition?  Yes No  Is the restanding water in the annular space between the well stand pipe and PVC casing?  Yes No  Is the stand pipe vented at the base to provide drainage?  Does the total depth of the well sounded correspond with original well completion depths?  Yes No	Odor	- Celv any		Color Odor			ea one	·)
Container Size Container Type # Collected Filtered Preservative pH Temp. Conductivity  500 ml plastic 1 no NaOH 12 4 C  500 ml plastic 1 no none 4 C  500 ml plastic 1 no HNO3 <2 4 C  1 liter platic 1 no HNO3 <2 4 C  1 liter platic 1 no HNO3 <2 4 C  Well identification number clearly marked?  Well covers and locks in good condition and secure?  Well stand pipe vertically aligned and secure?  Is the well stand pipe vertically aligned and secure?  Yes No  Is the concrete pad and surface seal in good condition?  Are soils surrounding the well pad eroded?  Is the PVC well casing in good condition?  Yes No  Is the PVC well casing in good condition?  Yes No  Is the restanding water in the annular space between the well stand pipe and PVC casing?  Yes No  Is the stand pipe vented at the base to provide drainage?  Does the total depth of the well sounded correspond with original well completion depths?  Yes No		- Clear any yes		Color Odor Turbidity (	> 100 NTU's)	 n	es one 2 (1205	)
Container Size Container Type # Collected Filtered Preservative pH Temp. Conductivity  500 ml plastic 1 no NaOH 12 4 C  500 ml plastic 1 no none 4 C  500 ml plastic 1 no HNO3 <2 4 C  1 liter platic 1 no HNO3 <2 4 C  1 liter platic 1 no HNO3 <2 4 C  Well identification number clearly marked?  Well covers and locks in good condition and secure?  Well stand pipe vertically aligned and secure?  Is the well stand pipe vertically aligned and secure?  Yes No  Is the concrete pad and surface seal in good condition?  Are soils surrounding the well pad eroded?  Is the PVC well casing in good condition?  Yes No  Is the PVC well casing in good condition?  Yes No  Is the restanding water in the annular space between the well stand pipe and PVC casing?  Yes No  Is the stand pipe vented at the base to provide drainage?  Does the total depth of the well sounded correspond with original well completion depths?  Yes No	Odor Turbidity (> 100 NTUs)	- Clear any yes		Color Odor Turbidity (	> 100 NTU's)	_ Cl _ nu _ nu _ no	2 (1205	
Solo mil plastic 1 no NaOH 12 4 C 500 ml plastic 1 no none 4 C 500 ml plastic 1 no HNO3 <2 4 C 1 1 liter platic 1 no HNO3 <2 4 C 1 1 liter platic 1 no HNO3 <2 4 C 1 1 liter platic 1 no HNO3 <2 4 C 1 1 liter platic 1 no HNO3 <2 4 C 1 1 liter platic 1 no HNO3 <2 4 C 1 1 liter platic 1 no HNO3 <2 4 C 1 liter platic 1 no HNO3 <2 5 C 1 C 1 liter platic 1 no HNO3 <2 6 C 1 C 1 liter platic 1 no HNO3 <2 7 C 1 C 1 liter platic 1 no HNO3 <2 8 C 1 C 1 liter platic 1 no HNO3 <2 8 C 1 C 1 liter platic 1 no HNO3 <2 8 C 1 C 1 liter platic 1 no HNO3 <2 8 C 1 C 1 liter platic 1 no HNO3 <2 8 C 1 C 1 liter platic 1 no HNO3 <2 8 C 1 C 1 liter platic 1 no HNO3 <2 8 C 1 C 1 liter platic 1 no HNO3 <2 8 C 1 C 1 liter platic 1 no HNO3 <2 8 C 1 liter platic 1 no HNO3 <2 8 C 1 liter platic 1 no HNO3 <2 8 C 1 liter platic 1 no HNO3 <2 8 C 1 liter platic 1 no HNO3 <2 8 C 1 liter platic 1 liter platic 1 no HNO3 <2 8 C 1 liter platic 1 liter platic 1 no HNO3 <2 8 C 1 liter platic 1 liter platic 1 no HNO3 <2 8 C 1 liter platic 1 liter platic 1 no HNO3 <2 8 C 1 liter platic 1 liter platic 1 no HNO3 <2 8 C 1 liter platic 1 liter platic 1 no HNO3 <2 8 C 1 liter platic 1 liter platic 1 liter platic 1 liter platic 1 no HNO3 <2 8 C 1 liter platic 1 liter	Odor Turbidity (> 100 NTUs) Sheen/Free Product	Clear none none	Ni Ph 7n	Color Odor Turbidity (	> 100 NTU's)	 	2 (1205)	)
Solid miles	Odor Turbidity (> 100 NTUs) Sheen/Free Product Sample Parameters:	Cd, Cr, Hex Cr, CN, Hg, Mn, I	Ni, Pb, Zn	Color Odor Turbidity (	> 100 NTU's) ee Product	_ Cl _ nu _ nu _ no	2 (1205)	)
Monitoring Well Integrity Checklist:  Well identification number clearly marked?  Well covers and locks in good condition and secure?  Is the well stand pipe vertically aligned and secure?  Is the concrete pad and surface seal in good condition?  Are soils surrounding the well pad eroded?  Is the PVC well casing in good condition?  Is the PVC well casing in good condition?  Is the example of the well stand pipe and PVC casing?  Yes  No  Is the example of the well stand pipe and PVC casing?  Yes  No  No  No  No  No  No  No  No  No  N	Odor Turbidity (> 100 NTUs) Sheen/Free Product Sample Parameters: Container Size	Cd, Cr, Hex Cr, CN, Hg, Mn, I	# Collected	Color Odor Turbidity ( Sheen/Fre	> 100 NTU's) ee Product  Preservative	nd hu ho		Conductivity
Monitoring Well Integrity Checklist:  Well identification number clearly marked?  Well covers and locks in good condition and secure?  Is the well stand pipe vertically aligned and secure?  Is the concrete pad and surface seal in good condition?  Are soils surrounding the well pad eroded?  Is the PVC well casing in good condition?  Yes  No  Is the PVC well casing in good condition?  Yes  No  Is there standing water in the annular space between the well stand pipe and PVC casing?  Yes  No  Does the total depth of the well sounded correspond with original well completion depths?  Yes  No  No	Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters:  Container Size 500 ml	Cd, Cr, Hex Cr, CN, Hg, Mn, I	# Collected	Color Odor Turbidity ( Sheen/Fre	> 100 NTU's) ee Product  Preservative NaOH	nd hu ho	4 C	Conductivity
Well identification number clearly marked?	Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml	Cd, Cr, Hex Cr, CN, Hg, Mn, I Container Type plastic plastic	# Collected 1	Color Odor Turbidity ( Sheen/Fre	> 100 NTU's) ee Product  Preservative NaOH none	pH 12	4 C 4 C 4 C	Conductivity
Well identification number clearly marked?	Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml	Cd, Cr, Hex Cr, CN, Hg, Mn, I Container Type plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity ( Sheen/Fre	> 100 NTU's) see Product  Preservative NaOH none HNO3	pH 12	4 C 4 C 4 C	Conductivity
Well identification number clearly marked?	Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml	Cd, Cr, Hex Cr, CN, Hg, Mn, I Container Type plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity ( Sheen/Fre	> 100 NTU's) see Product  Preservative NaOH none HNO3	pH 12	4 C 4 C 4 C	Conductivity
Well identification number clearly marked?	Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml	Cd, Cr, Hex Cr, CN, Hg, Mn, I Container Type plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity ( Sheen/Fre	> 100 NTU's) see Product  Preservative NaOH none HNO3	pH 12	4 C 4 C 4 C	Conductivity
Well identification number clearly marked?	Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml	Cd, Cr, Hex Cr, CN, Hg, Mn, I Container Type plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity ( Sheen/Fre	> 100 NTU's) see Product  Preservative NaOH none HNO3	pH 12	4 C 4 C 4 C	Conductivity
Well identification number clearly marked?	Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml	Cd, Cr, Hex Cr, CN, Hg, Mn, I Container Type plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity ( Sheen/Fre	> 100 NTU's) see Product  Preservative NaOH none HNO3	pH 12	4 C 4 C 4 C	Conductivity
Well identification number clearly marked?	Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml	Cd, Cr, Hex Cr, CN, Hg, Mn, I Container Type plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity ( Sheen/Fre	> 100 NTU's) see Product  Preservative NaOH none HNO3	pH 12	4 C 4 C 4 C	Conductivity
Well covers and locks in good condition and secure?  Is the well stand pipe vertically aligned and secure?  Is the concrete pad and surface seal in good condition?  Are soils surrounding the well pad eroded?  Is the PVC well casing in good condition?  Is there standing water in the annular space between the well stand pipe and PVC casing?  Is the stand pipe vented at the base to provide drainage?  Does the total depth of the well sounded correspond with original well completion depths?  Yes  No  No  No  No  No  No  No  No  No  N	Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml 1 liter	Cd, Cr, Hex Cr, CN, Hg, Mn, I  Container Type plastic plastic plastic platic	# Collected 1 1 1	Color Odor Turbidity ( Sheen/Fre	> 100 NTU's) see Product  Preservative NaOH none HNO3	pH 12	4 C 4 C 4 C	Conductivity
Is the well stand pipe vertically aligned and secure?	Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrit	Cd, Cr, Hex Cr, CN, Hg, Mn, In Container Type plastic plastic plastic platic platic	# Collected 1 1 1 1 1	Color Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3	PH 12 <2 <2 <2	4 C 4 C 4 C 4 C	
Is the concrete pad and surface seal in good condition?  Are soils surrounding the well pad eroded?  Is the PVC well casing in good condition?  Is there standing water in the annular space between the well stand pipe and PVC casing?  Is the stand pipe vented at the base to provide drainage?  Does the total depth of the well sounded correspond with original well completion depths?  No  No  No  No  No  No	Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrit	Cd, Cr, Hex Cr, CN, Hg, Mn, I Container Type plastic plastic plastic platic platic	# Collected 1 1 1 1 1	Color Odor Turbidity ( Sheen/Fre	> 100 NTU's) ee Product  Preservative NaOH none HNO3 HNO3	PH   12   <2   <2   <2	4 C 4 C 4 C 4 C	
Does the total depth of the well sounded correspond with original well completion depths?Yes No	Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrit  Well identification num Well covers and locks	Cd, Cr, Hex Cr, CN, Hg, Mn, I Container Type plastic plastic plastic platic platic  ty Checklist:  ber clearly marked?	# Collected 1 1 1 1 1	Color Odor Turbidity ( Sheen/Fre	> 100 NTU's) ee Product  Preservative NaOH none HNO3 HNO3	PH 12 <2 <2 <2	4 C 4 C 4 C 4 C	
Does the total depth of the well sounded correspond with original well completion depths?Yes No	Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrit  Well identification num Well covers and locks Is the well stand pipe vis the concrete pad and	Cd, Cr, Hex Cr, CN, Hg, Mn, I Container Type plastic plastic plastic platic platic  ty Checklist:  ber clearly marked?	# Collected 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Color Odor Turbidity ( Sheen/Fre	> 100 NTU's) see Product  Preservative NaOH none HNO3 HNO3  Yes Yes	pH 12 <2 <2 <2	4 C 4 C 4 C 4 C	
Does the total depth of the well sounded correspond with original well completion depths?Yes No	Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrit  Well identification num Well covers and locks Is the well stand pipe volume is the concrete pad and Are soils surrounding to	Cd, Cr, Hex Cr, CN, Hg, Mn, I Container Type plastic plastic plastic platic platic  ty Checklist:  ber clearly marked? in good condition and secure? d surface seal in good condition he well pad eroded?	# Collected 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Color Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3 HNO3  Yes Yes Yes	pH 12 <2 <2 <2 <5 S S S S S S S S S S S S S S S S S S	4 C 4 C 4 C 4 C	
Does the total depth of the well sounded correspond with original well completion depths?Yes No	Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrit  Well identification num Well covers and locks Is the well stand pipe vills the concrete pad and Are soils surrounding tills the PVC well casing	Cd, Cr, Hex Cr, CN, Hg, Mn, I Container Type plastic plastic plastic platic platic  ty Checklist:  ber clearly marked? in good condition and secure? d surface seal in good condition he well pad eroded? in good condition?	# Collected 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Color Odor Turbidity ( Sheen/Fre	> 100 NTU's) ee Product  Preservative NaOH none HNO3 HNO3  Ye: Ye: Ye: Ye: Ye: Ye:	pH 12 <2 <2 <2 SS	4 C 4 C 4 C 4 C	
	Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrif  Well identification num Well covers and locks Is the well stand pipe v Is the PVC well casing Is there standing water	Cd, Cr, Hex Cr, CN, Hg, Mn, I Container Type plastic plastic plastic platic platic  ty Checklist:  ber clearly marked? in good condition and secure? d surface seal in good condition? in good condition? in good condition? in the annular space between	# Collected  1 1 1 1 1 1 1 1 1  1 the well stand pipe a	Color Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3 HNO3  Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye	pH 12 <2 <2 <2 SS	4 C 4 C 4 C 4 C	
NOTES: Top of casing elevation: 997.71 Depth to Ground Water: 9.43 Ground Water Elevation: 988.38	Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrif  Well identification num Well covers and locks Is the well stand pipe v Is the concrete pad and Are soils surrounding t Is the PVC well casing Is there standing water Is the stand pipe vente	Cd, Cr, Hex Cr, CN, Hg, Mn, I Container Type plastic plastic plastic platic  platic  ty Checklist:  ber clearly marked? in good condition and secure? rertically aligned and secure? d surface seal in good conditior he well pad eroded? in good condition? in the annular space between d at the base to provide drainar	# Collected  1 1 1 1 1 1 1 1 1 1  The well stand pipe a ge?	Color Odor Turbidity ( Sheen/Free  Filtered no no no no	Preservative NaOH none HNO3 HNO3  Yes Yes Yes Yes Yes Yes Yes Yes Yes	pH 12 <2 <2 <2 <5 S S S S S S S S S S S S S S S S S S	A C A C A C A C A C A C A C A C A C A C	
Ground Water Elevation: 988.38	Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrit  Well identification num Well covers and locks Is the well stand pipe v Is the concrete pad and Are soils surrounding t Is the PVC well casing Is there standing water Is the stand pipe vente Does the total depth of	Cd, Cr, Hex Cr, CN, Hg, Mn, In Container Type plastic plastic plastic platic pl	# Collected  1 1 1 1 1 1 1  **The well stand pipe a ge?  with original well con	Color Odor Turbidity ( Sheen/Free  Filtered no no no no	Preservative NaOH none HNO3 HNO3  Yes Yes Yes Yes Yes Yes Yes Yes Yes	pH 12 <2 <2 <2 <5 S S S S S S S S S S S S S S S S S S	A C A C A C A C A C A C A C A C A C A C	
Growing Trader Electronic	Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters:  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrit  Well identification num Well covers and locks Is the well stand pipe v Is the concrete pad and Are soils surrounding t Is the PVC well casing Is there standing water Is the stand pipe vente Does the total depth of	Cd, Cr, Hex Cr, CN, Hg, Mn, In Container Type plastic plastic plastic platic pl	# Collected  1 1 1 1 1 1 1  **The well stand pipe a ge?  with original well con	Color Odor Turbidity ( Sheen/Free  Filtered no no no no	Preservative NaOH none HNO3 HNO3  Yes Yes Yes Yes Yes Yes Yes Yes Yes	pH 12 <2 <2 <2 <5 S S S S S S S S S S S S S S S S S S	A C A C A C A C A C A C A C A C A C A C	

D'BRIEN & GERE ENGINEER:	S, INC.		Ground W	ater Sampling Log			
Date: / 427/99				Weather:	11.	My 73	500
Site Name: Inland Realty				Well Number:	Le	GWW-4S	
Site Location Maryville, MO				Project Number:	3050	".005"	
Personnel: William Wright			_	Evacuation Method	: Ba	iles	
						·	
Depth of Well *	20.48 ft.	Water Vo	lume /ft. for:				
	8.06 ft.			er Well = 0.163 X LV			
_ength of Water Column //	2.42 ft.	$\times$		er Well = 0.653 X L\ er Well = 1.469 X L\			
3X Volume of Water in Well	<b>5'₁</b> gal.(s) <b>-2'√₃ 3</b> gal.(s)		o Diamete	ei vveii - 1.403 A Lv	^//C		
on volume of vvaler in vveir	<u>حربه ع</u> yai.(۵)	Volume r Did well g		ore sampling Yes	9	No	gal.(s)
Measurements taken from	X Top of W	Vell Casing		Top of Protective C	Casing		(Other, Specify)
Water parameters:							
Temperatur	e Reading		pH Readir	ng		Con	ductivity Reading
		4.0 Stand		4.01			
		7.0 Stand 10.0 Stan		1.02		84 S Star 1413 S S	
	initial 66.7	initial	idald	600		initial	2 <b>2</b>
after 8 (gal.)	La la	after 🗲	(gal.)	1.47	after	5	(gal.) 3420
after (gal.)	07.7	after	_ (gal.)	0	after		(gal.)
after (gal.)		after	_ (gal.)		after		(gal.)
after (gal.)		after	(gal.)		after		(gal.)
after(gal.)		after	(gal.)		after		(gal.)
Water Sample: Time Collected: /500	10	ubody: cat	0.02/	Initiali 3		Sal!	836
	7	,	Dhysical (	Appearance at Sam	aliaa	1	
Physical Appearance at Start							
-			rilysical	Appearance at Carry	pility		
Color	lear		Color	appearance at carry	mu	Thy &	ray
Color	lew		Color Odor		my _n	they 8	nay
Color Odor Turbidity (> 100 NTUs)	lear gry one		Color Odor Turbidity (	(> 100 NTU's) ee Product	my n	the 8	ns
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product	Pear 2ng one , Hex Cr, CN, Hg, Mn, Ni	i, Pb, Zn	Color Odor Turbidity (	(> 100 <b>N</b> TU's)	my n	thy 8	104 NS
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size	, Hex Cr, CN, Hg, Mn, Ni Container Type	# Collected	Color Odor Turbidity ( Sheen/Fre	(> 100 NTU's) ee Product  Preservative	nu ge n	Temp.	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size 500 ml	Hex Cr, CN, Hg, Mn, Ni  Container Type plastic	# Collected	Color Odor Turbidity ( Sheen/Fre	(> 100 NTU's) ee Product  Preservative NaOH	nu ge n	4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size 500 ml 500 ml	, Hex Cr, CN, Hg, Mn, Ni  Container Type plastic plastic	# Collected 1	Color Odor Turbidity ( Sheen/Fre Filtered no	(> 100 NTU's) ee Product  Preservative NaOH none	pH 12	4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size 500 ml 500 ml 500 ml	Container Type plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3	pH 12	4 C 4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size 500 ml 500 ml	, Hex Cr, CN, Hg, Mn, Ni  Container Type plastic plastic	# Collected 1	Color Odor Turbidity ( Sheen/Fre Filtered no	(> 100 NTU's) ee Product  Preservative NaOH none	pH 12	4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size 500 ml 500 ml 500 ml	Container Type plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3	pH 12	4 C 4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size 500 ml 500 ml 500 ml	Container Type plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3	pH 12	4 C 4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size 500 ml 500 ml 500 ml	Container Type plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3	pH 12	4 C 4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size 500 ml 500 ml 500 ml	Container Type plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3	pH 12	4 C 4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size 500 ml 500 ml 500 ml	Container Type plastic plastic plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3	pH 12	4 C 4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clea	Container Type plastic plastic plastic plastic platic	# Collected 1 1 1 1 1	Color Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3 HNO3	pH 12 <2 <2 <2	4 C 4 C 4 C 4 C	
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clea Well covers and locks in good	Container Type plastic plastic plastic plastic platic  platic  klist:	# Collected 1 1 1 1 1	Color Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3 HNO3	pH 12 <2 <2 <2	4 C 4 C 4 C 4 C	
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clea Well covers and locks in good Is the well stand pipe vertically	Container Type plastic plastic plastic platic platic  klist:  rly marked?	# Collected 1 1 1 1 1	Color Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3 HNO3  Yes	pH 12 <2 <2 <2 S S S S S S S S S S S S S S S	4 C 4 C 4 C 4 C	
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clea Well covers and locks in good Is the well stand pipe vertically Is the concrete pad and surface	Container Type plastic plastic plastic platic platic  platic  klist:  condition and secure?e seal in good condition?	# Collected 1 1 1 1 1 1 0	Color Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3 HNO3  Yes Yes	pH 12 <2 <2 <2 <5 × 5 × 5 × 5 × 5 × 5 × 5 × 5 × 5 × 5	4 C 4 C 4 C 4 C	
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clea Well covers and locks in good Is the well stand pipe vertically Is the concrete pad and surfac Are soils surrounding the well recovers.	Container Type plastic plastic plastic plastic platic  platic  klist:  condition and secure? aligned and secure? e seal in good condition?	# Collected 1 1 1 1 1	Color Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3 HNO3  Yes Yes Yes	pH 12 <2 <2 <> > > S S S S S S S S S S S S S S S S	4 C 4 C 4 C 4 C	
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clea Well covers and locks in good Is the well stand pipe vertically Is the concrete pad and surfac Are soils surrounding the well is the PVC well casing in good	Container Type plastic plastic plastic plastic platic  platic  klist:  condition and secure? aligned and secure? e seal in good condition? pad eroded?	# Collected 1 1 1 1 1	Color Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3 HNO3  Yes Yes Yes	pH 12 <2 <2 <2 <5 S S S S S S S S S S S S S S S S S S	4 C 4 C 4 C 4 C	
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clea Well covers and locks in good Is the well stand pipe vertically Is the Concrete pad and surface Are soils surrounding the well gis the PVC well casing in good Is there standing water in the a	Container Type plastic plastic plastic plastic plastic platic  platic  klist:  arly marked? condition and secure? aligned and secure? pad eroded? condition?	# Collected 1 1 1 1 1 1 ne well stand pipe a	Color Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3 HNO3  Yes Yes Yes Yes Yes Yes	pH 12 <2 <2 <2 <5 S S S S S S S S S S S S S S S S S S	4 C 4 C 4 C 4 C	
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clea Well covers and locks in good Is the well stand pipe vertically Is the concrete pad and surface Are soils surrounding the well pils there standing water in the alls the stand pipe vented at the	Container Type plastic plastic plastic plastic plastic platic  platic  klist:  arly marked? condition and secure? aligned and secure? es seal in good condition? pad eroded? condition? annular space between the base to provide drainage.	# Collected  1 1 1 1 1 1 one well stand pipe and any one w	Color Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3 HNO3  Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye	pH 12 <2 <2 <2 <5 S S S S S S S S S S S S S S S S S S	4 C 4 C 4 C 4 C	
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clea Well covers and locks in good is the well stand pipe vertically sthe concrete pad and surface Are soils surrounding the well gis the PVC well casing in good is the stand pipe vented at the Does the total depth of the well	Container Type plastic plastic plastic plastic platic  platic  platic  condition and secure? aligned and secure? pad eroded? condition? annular space between the base to provide drainage.	# Collected  1 1 1 1 1 1 one well stand pipe as a? th original well con	Color Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3 HNO3  Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye	pH 12 <2 <2 <2 <5 S S S S S S S S S S S S S S S S S S	4 C 4 C 4 C 4 C	

O'BRIEN & GERE ENGINEER	RS. INC.		Ground Wa	ater Sampling Log			
Date: // 27/9 7 Site Name: Inland Realty Site Location Maryville, MO William Wrigh	_		-	Weather: Well Number: Project Number: Evacuation Method	3050	GMW-4D ".005"	· · · · · · · · · · · · · · · · · · ·
Depth of Well * Depth to Water * Length of Water Column Volume of Water in Well 3X Volume of Water in Well	37.09 ft. 9.42 ft. 9.67 ft. 4.5 gal.(s) /3.5 gal.(s)	X	4" Diamete 6" Diamete	er Well = 0.163 X LV er Well = 0.653 X LV er Well = 1.469 X LV ore sampling	NC NC / 9	No	al.(s)
*Measurements taken from	X Top of V	Vell Casing		Top of Protective C	Casing	((	Other, Specify)
Water parameters:		ı.			Ī		
after 4. 5 (gal.) after 7.0 (gal.) after (gal.) after (gal.) after (gal.)	initial (66.4)	4.0 Stand 7.0 Stand 10.0 Stand initial after 4.5 after 5.0 after 7.3-5 after after	lard idard	9 3.99 7.02 7.16 6.86 6.272	after after after after after	84 S Stand 1413 S Sta initial 42 6 ( 9.0 (	ndard/967@809-
Water Sample: Time Collected:  Physical Appearance at Start	_	erbedity:	-	29 9.0Appearance at Sam		Z /3.5 <u>s</u>	24
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product	leftymlfy mong nong			(> 100 NTU's) ee Product	10 20	ear my cone	
	Cr, Hex Cr, CN, Hg, Mn, N	li, Pb, Zn					
Sample Parameters: Cd, C				1			
Container Size	Container Type	# Collected	Filtered	Preservative	pH	Temp.	Conductivity
Container Size 500 ml	plastic	1	no	NaOH		4 C	Conductivity
Container Size 500 ml 500 ml	plastic plastic	1 1	no no	NaOH none	12	4 C	Conductivity
Container Size 500 ml	plastic	1	no	NaOH		4 C	Conductivity
Container Size 500 ml 500 ml 500 ml	plastic plastic plastic	1 1 1	no no no	NaOH none HNO3	<2	4 C 4 C 4 C	Conductivity
Container Size 500 ml 500 ml 500 ml	plastic plastic plastic	1 1 1	no no no	NaOH none HNO3	<2	4 C 4 C 4 C	Conductivity
Container Size 500 ml 500 ml 500 ml	plastic plastic plastic	1 1 1	no no no	NaOH none HNO3	<2	4 C 4 C 4 C	Conductivity
Container Size 500 ml 500 ml 500 ml	plastic plastic plastic plastic plastic plastic platic  cklist:  ccklist:  ccklist:  cd condition and secure?  dly aligned and secure?  care seal in good condition  ll pad eroded?  cd condition?  cannular space between  ce base to provide drainage	?the well stand pipe	no no no no	NaOH	12 <2 <2 <2 <2 <2 <2 <2 <2 <2 <4 <4 <4 <4 <4 <4 <4 <4 <4 <4 <4 <4 <4	4 C 4 C 4 C 4 C	

O'BRIEN & GERE ENGINEER	RS, INC.		Ground Wa	ater Sampling Log			
Date: 10/27/99	_			Weather:	clea	4,50	F
Site Name: Inland Realty Site Location Maryville, MO				Well Number: Project Number:	3050	GMW-5S ".005"	
Personnel: William Wright				Evacuation Method		-	
D	22 02 4	MotorNo	lume /ft. for:				
	23.83 ft. 10-27 ft. 13.5 <u>L</u> ft. 2.2 gal.(s) 9.6 gal.(s)	X	2" Diamete 4" Diamete	er Well = 0.163 X LV er Well = 0.653 X LV er Well = 1.469 X LV	NC	,	
5X volume of vvaler in vven	<u> y gan</u>	Volume re Did well g		ore sampling Yes		. 5 No	gal.(s)
*Measurements taken from	X Top of W	Vell Casing		Top of Protective C	asing		(Other, Specify)
Water parameters:	ı				r .		
Temperatu	re Reading	4.0 Stand 7.0 Stand		3,99 7.01		Con 84 S Stan	ductivity Readin
	1.4.3	10.0 Star		NA		1413 S St initial	tandard 1305
after 2. 5 (gal.)	initial <u>(06. 7</u>	initial after 2.5	(gal.)	6.28		2.5	(gal.) 1828
after 5. 0 (gal.)	56.7	after 5.0	(gal.)	6.37		7.5	(gal.) <i>1835</i> (gal.) <i>19</i> <b>8</b> 7
after <u>7 - 5</u> (gal.) after (gal.)	5/2	after 7 - 5	_ (gal.) _ (gal.)	6.45	after		(gal.) / / / / / / / / / (gal.)
after (gal.)		after	_ (gal.)	***************************************	after		(gal.)
Water Sample: Time Collected: 103	30 HaxCr: 1	1 67	Tust.	4/53/156	Pard 142.4	0.02	cal. \$0.0=
,		1,01		/ / /	,		
•			Physical A	Appearance at Sami	plina	7	
Physical Appearance at Start		To L		Appearance at Sam	pling	0.40	
Physical Appearance at Start  Color	w		Color	Appearance at Sam	pling	letty o	louly
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs)	ev one		Color Odor Turbidity (	> 100 NTU's) N	Slight of the	ly o	louly
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs)	ev ev		Color Odor Turbidity (		Shanning no	leg o	louly
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cd	r, Hex Cr, CN, Hg, Mn, Ni	i, Pb, Zn	Color Odor Turbidity ( Sheen/Fre	> 100 NTU's) Ma	Shape of no	0	,
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cd  Container Size	r, Hex Cr, CN, Hg, Mn, Ni		Color Odor Turbidity ( Sheen/Fre	> 100 NTU's) Made Product  Preservative	Slight no ph	Temp.	Conductiv
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cd	r, Hex Cr, CN, Hg, Mn, Ni	i, Pb, Zn	Color Odor Turbidity ( Sheen/Fre	> 100 NTU's) Ma	Slight no ph	Temp. 4 C	,
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cd  Container Size 500 ml 500 ml 500 ml	r, Hex Cr, CN, Hg, Mn, Ni  Container Type plastic plastic plastic plastic	i, Pb, Zn  # Collected  1  1	Color Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3	Shan no	Temp. 4 C 4 C 4 C	,
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cd  Container Size 500 ml 500 ml	r, Hex Cr, CN, Hg, Mn, Ni  Container Type plastic plastic	i, Pb, Zn  # Collected 1 1	Color Odor Turbidity ( Sheen/Fre	> 100 NTU's) Made Product  Preservative NaOH none	Shannon Market M	Temp. 4 C	,
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cd  Container Size 500 ml 500 ml 500 ml	r, Hex Cr, CN, Hg, Mn, Ni  Container Type plastic plastic plastic plastic	i, Pb, Zn  # Collected  1  1	Color Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3	Shan no	Temp. 4 C 4 C 4 C	,
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cd  Container Size 500 ml 500 ml 500 ml	r, Hex Cr, CN, Hg, Mn, Ni  Container Type plastic plastic plastic plastic	i, Pb, Zn  # Collected  1  1	Color Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3	Shan no	Temp. 4 C 4 C 4 C	,
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cd  Container Size 500 ml 500 ml 500 ml	r, Hex Cr, CN, Hg, Mn, Ni  Container Type plastic plastic plastic plastic	i, Pb, Zn  # Collected  1  1	Color Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3	Shan no	Temp. 4 C 4 C 4 C	,
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cd  Container Size 500 ml 500 ml 500 ml	r, Hex Cr, CN, Hg, Mn, Ni  Container Type plastic plastic plastic platic	i, Pb, Zn  # Collected  1  1	Color Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3	Shan no	Temp. 4 C 4 C 4 C	,
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clear	r, Hex Cr, CN, Hg, Mn, Ni  Container Type plastic plastic plastic platic  cklist:  arly marked?	# Collected 1 1 1 1	Color Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3 HNO3	PH 12 <2 <2 <2	Temp. 4 C 4 C 4 C	Conductiv
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cd  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clear Well covers and locks in good	r, Hex Cr, CN, Hg, Mn, Ni  Container Type plastic plastic plastic platic  cklist:  arly marked?	# Collected 1 1 1 1	Color Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3 HNO3	PH 12 <2 <2 ×2	Temp. 4 C 4 C 4 C C 4 C	Conductiv
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cd  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clear Well covers and locks in good is the well stand pipe vertically is the concrete pad and surface	r, Hex Cr, CN, Hg, Mn, Ni  Container Type plastic plastic plastic platic  cklist:  arly marked?	# Collected 1 1 1 1	Color Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3 HNO3  Ye Ye Ye Ye Ye	PH 12 <2 <2 <2 ×2 ×2 ×3 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5	Temp. 4 C 4 C 4 C 4 C No	Conductiv
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cd  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number cleavell stand pipe vertically is the concrete pad and surface Are soils surrounding the well	r, Hex Cr, CN, Hg, Mn, Ni  Container Type plastic plastic plastic plastic platic  cklist:  arly marked?	# Collected 1 1 1 1	Color Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3 HNO3  Ye Ye Ye Ye Ye Ye	PH 12 <2 <2 <> 2 <> 5 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	Temp. 4 C 4 C 4 C 4 C No	Conductiv
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cd  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number cleavel well covers and locks in good is the well stand pipe vertically is the concrete pad and surface. Are soils surrounding the well is the PVC well casing in good is the PVC well casing in good.	r, Hex Cr, CN, Hg, Mn, Ni  Container Type plastic plastic plastic plastic platic  cklist:  arly marked? d condition and secure? y aligned and secure? ce seal in good condition? pad eroded? d condition?	# Collected 1 1 1 1	Color Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3 HNO3  Ye Ye Ye Ye Ye Ye Ye Ye Ye	PH 12 <2 <2 <> 2 <> 5	Temp. 4 C 4 C 4 C 4 C No	Conductiv
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cd  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number cleavell stand pipe vertically is the concrete pad and surface Are soils surrounding the well	cklist:  arly marked? d condition and secure? y aligned and secure? pad eroded? annular space between the base to provide drainage.	# Collected 1 1 1 1 1 one well stand pipe a	Color Odor Turbidity ( Sheen/Fre	Preservative NaOH none HNO3 HNO3  Ye	pH 12 <2 <2 <2 <5 S S S S S S S S S S S S S S S S S S	Temp. 4 C 4 C 4 C 4 C No	Conductiv

	S, INC.		Ground Wa	ater Sampling Log			
Date: Site Name: Inland Realty Site Location Maryville, MO Personnel: William Wright			-	Weather: Well Number: Project Number: Evacuation Method	3050 Basi	GMW-5D ".005"	<u> </u>
Depth of Well * Depth to Water * Length of Water Column Volume of Water in Well 3X Volume of Water in Well /	37.77 ft.  12.49 ft. 25.28 ft. 4 / gal.(s) 2 . 3 gal.(s)	X	4" Diamete 6" Diamete	er Well = 0.163 X LV er Well = 0.653 X LV er Well = 1.469 X LV ere sampling	NC NC	No_	al.(s)
*Measurements taken from	X Top of W	Vell Casing		Top of Protective C	Casing	(1	Other, Specify)
Water parameters:					1		
after (gal.) after (gal.) after (gal.) after (gal.) after (gal.) after (gal.)	initial 62.3 58.5 57.1 57.4	4.0 Stand 7.0 Stand 10.0 Stan initial after after after after after	lard  dard   (gal.)   (gal.)   (gal.)   (gal.)   (gal.)	4.04 6.99 NA HOGE.26 7.11 7.35 7.45	after after after after after	84 S Stand 1413 S Sta initial	gal.) //40 gal.) //40 gal.) //40 gal.) //40
Water Sample: Time Collected: #30	o, Crtb: 1205	la-bid.ty	i. asel.	0.02N79 ini	tial i	8.6 4. 12:	1 <u>7</u> 8: 14.4 23.4
Physical Appearance at Start	]		Physical A	oppearance at Samp	pling	]	
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd, Cr	r, Hex Cr, CN, Hg, Mn, Ni	, Pb, Zn	Color Odor Turbidity ( Sheen/Fre	> 100 NTU's) se Product	no;	ene	
Sample Farantelers. Cu, Ci							
P	Container Type	# Collected	Filtered	Preservative	Hq	Temp.	Conductivity
Container Size 500 ml	Container Type plastic	# Collected 1	Filtered no	Preservative NaOH		4 C	Conductivity
Container Size 500 ml 500 ml	plastic plastic	1	no no	NaOH none	12	4 C 4 C	Conductivity
Container Size 500 ml	plastic	1	no	NaOH		4 C	Conductivity
Container Size 500 ml 500 ml 500 ml	plastic plastic plastic	1 1 1	no no no	NaOH none HNO3	<2	4 C 4 C 4 C	Conductivity
Container Size 500 ml 500 ml 500 ml	plastic plastic plastic	1 1 1	no no no	NaOH none HNO3	<2	4 C 4 C 4 C	Conductivity
Container Size 500 ml 500 ml 500 ml	plastic plastic plastic	1 1 1	no no no	NaOH none HNO3	<2	4 C 4 C 4 C	Conductivity
Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Chec Well identification number clea Well covers and locks in good Is the well stand pipe vertically Is the concrete pad and surfac Are soils surrounding the well Is the PVC well casing in good Is there standing water in the a Is the stand pipe vented at the Does the total depth of the we	plastic plastic plastic plastic platic  platic  klist:  arly marked? condition and secure? v aligned and secure? de seal in good condition? pad eroded? de condition? annular space between the base to provide drainage ll sounded correspond wi evation:1003.25	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	no no no no	Ye	12 <2 <2 <2 <2 <5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5 ×5	4 C	

O'BRIEN & GERE ENGINE	EERS, INC.		Ground V	Vater Sampling Log			
Date: //27/99				Weather:	100	1 80	o C
Site Name: Inland Realty	1			Well Number:	CALL	GMW-9	
Site Location Maryville, MC			_	Project Number:	3050	".005"	8
Personnel: William Wr	right		_	Evacuation Method	d:_ <i>D</i> a	ilen	
Depth of Well *	29.97 ft.		lume /ft. for				
Depth to Water * Length of Water Column	773ft.	X		ter Well = 0.163 X L			
Volume of Water in Well	<i>22.3</i> ⊈ft. <b>3.6</b> gal.(s)			ter Well = 0.653 X L' ter Well = 1.469 X L'			
3X Volume of Water in Wel		L			,	7	
				fore sampling		<u> </u>	gal.(s)
		Did well o	go dry?	Yes	s	_ No	$ \swarrow $
							(Other, Specify)
*Measurements taken from	Top of V	Vell Casing		Top of Protective (	Casing		
Water parameters:							
vvater parameters.					1		
Temper	rature Reading		pH Readi	ng		Con	ductivity Reading
		4.0 Stand		4.02		84 S Star	1/1
		7.0 Stand 10.0 Stan		6.49 NA			tandard/5380850F
	initial 69.7	initial		7-07		initial	1874
after 4 (ga		after 4	_ (gal.)	6.62	after	-	(gal.) /040
after 8 (ga	al.) 1.24.0 al.) 64.2	after 8	_ (gal.) - (gal.)	6.35	after after		(gal.) <u>//<b>まろ</b>(//23)</u> (gal.) // <i>3</i> 2
after (ga		after	_ (gal.)	6,60	after		(gal.)
after(ga	al.)	after	(gal.)		after		(gal.)
Water Sample:		Turbic	dity'.	cal: 0.02		,	
Time Collected:	1615	initial:	15.4	4sul 184	Scal	84	12 5 at 75
Dhariagi Assess			/		-5 .	/	9
			D1			7	
Physical Appearance at St	art		Physical /	Appearance at Sam	pling	]	
Physical Appearance at St.			Physical A	Appearance at Sam	pling slie	] Rober sea	es/
Color Odor	art Betty Cloudy		Color Odor		pling Slig	lely sid	ry
Color			Color Odor Turbidity	Appearance at Sam (> 100 NTU's) ee Product	slig no	] Lily sid	uy
Color Odor Turbidity (> 100 NTUs)			Color Odor Turbidity	(> 100 NTU's)	slig no	lethe sid	uj
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product	none cloudy	i Dh. 7a	Color Odor Turbidity	(> 100 NTU's)	slig no	dely side	<i>y</i>
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product		i, Pb, Zn	Color Odor Turbidity	(> 100 NTU's)	slig no	Abby side	<u> </u>
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd	none cloudy	i, Pb, Zn # Collected	Color Odor Turbidity	(> 100 NTU's)	slig no N	Temp.	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd  Container Size 500 ml	d, Cr, Hex Cr, CN, Hg, Mn, N  Container Type plastic	# Collected	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ee Product  Preservative NaOH	slig no N	4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd  Container Size 500 ml 500 ml	A, Cr, Hex Cr, CN, Hg, Mn, No.  Container Type plastic plastic	# Collected 1	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ee Product  Preservative NaOH none	pH 12	4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd  Container Size 500 ml	d, Cr, Hex Cr, CN, Hg, Mn, N  Container Type plastic	# Collected	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ee Product  Preservative NaOH	slig no N	4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd  Container Size 500 ml 500 ml 500 ml	A, Cr, Hex Cr, CN, Hg, Mn, No.  Container Type plastic plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ee Product  Preservative NaOH none HNO3	pH 12	4 C 4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd  Container Size 500 ml 500 ml 500 ml	A, Cr, Hex Cr, CN, Hg, Mn, No.  Container Type plastic plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ee Product  Preservative NaOH none HNO3	pH 12	4 C 4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd  Container Size 500 ml 500 ml 500 ml	A, Cr, Hex Cr, CN, Hg, Mn, No.  Container Type plastic plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ee Product  Preservative NaOH none HNO3	pH 12	4 C 4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd  Container Size 500 ml 500 ml 500 ml	A, Cr, Hex Cr, CN, Hg, Mn, No.  Container Type plastic plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ee Product  Preservative NaOH none HNO3	pH 12	4 C 4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd  Container Size 500 ml 500 ml 500 ml	A, Cr, Hex Cr, CN, Hg, Mn, No.  Container Type plastic plastic plastic plastic	# Collected 1 1 1	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ee Product  Preservative NaOH none HNO3	pH 12	4 C 4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd  Container Size 500 ml 500 ml 500 ml	d, Cr, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic platic	# Collected 1 1 1	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ee Product  Preservative NaOH none HNO3	pH 12	4 C 4 C 4 C	Conductivity
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Cl	Container Type plastic plastic platic platic hecklist:	# Collected 1 1 1 1 1	Color Odor Turbidity Sheen/Fr	Preservative NaOH none HNO3 HNO3	pH 12 <2 <2 <2	4 C 4 C 4 C 4 C	
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Cl	Container Type plastic plastic plastic platic platic  hecklist: clearly marked?	# Collected 1 1 1 1 1	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ee Product  Preservative NaOH none HNO3 HNO3	pH 12 <2 <2 <2	4 C 4 C 4 C 4 C	
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Cl  Well identification number of Well covers and locks in go	Container Type plastic plastic platic platic  hecklist:  clearly marked?	# Collected 1 1 1 1 1	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ee Product  Preservative NaOH none HNO3 HNO3	pH 12 <2 <2 <2	4 C 4 C 4 C 4 C	
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Cl  Well identification number of Well covers and locks in go is the well stand pipe vertic is the concrete pad and su	Container Type plastic plastic plastic plastic platic  hecklist:  clearly marked?	# Collected 1 1 1 1 1	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ee Product  Preservative NaOH none HNO3 HNO3	pH 12 <2 <2 <2	4 C 4 C 4 C 4 C	
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Cl  Well identification number of Well covers and locks in go is the well stand pipe vertic is the concrete pad and su Are soils surrounding the well surrounding	d, Cr, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic platic  hecklist:  clearly marked?	# Collected	Color Odor Turbidity Sheen/Fr	(> 100 NTU's) ee Product  Preservative NaOH none HNO3 HNO3  Yes Yes Yes	pH 12 <2 <2 <2 SS	4 C 4 C 4 C 4 C	
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd  Container Size 500 ml 500 ml 1 liter  Monitoring Well Integrity Cl  Well identification number of Well covers and locks in go Is the well stand pipe vertic Is the concrete pad and su Are soils surrounding the wis the PVC well casing in gister in the same page of the policy of the policy of the policy of the well stand pipe vertic Is the concrete pad and su Are soils surrounding the wist he PVC well casing in gisting the policy of the polic	d, Cr, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic plastic platic  hecklist:  clearly marked?	# Collected 1 1 1 1 1	Color Odor Turbidity Sheen/Fr	Preservative NaOH none HNO3 HNO3  Yes Yes Yes	pH 12 <2 <2 <	4 C 4 C 4 C 4 C 7 C 8 NO NO NO NO NO NO NO	
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Cl  Well identification number of Well covers and locks in go Is the well stand pipe vertic Is the concrete pad and su Are soils surrounding the wis the PVC well casing in gis there standing water in the standing water wat	A, Cr, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic plastic platic  hecklist:  clearly marked?	# Collected  1 1 1 1 1 1 one well stand pipe a	Color Odor Turbidity Sheen/Fr	Preservative NaOH none HNO3 HNO3  Yes Yes Yes Yes Yes	pH 12 <2 <2 <2 <5 S S S S S S S S S S S S S S S S S S	4 C 4 C 4 C 4 C 7 C 8 NO NO NO NO NO NO NO	
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Cl  Well identification number well covers and locks in go ls the well stand pipe vertic ls the concrete pad and su Are soils surrounding the well sthe PVC well casing in gls there standing water in tils the stand pipe vented at	d, Cr, Hex Cr, CN, Hg, Mn, N  Container Type plastic plastic plastic plastic platic  hecklist:  clearly marked?	# Collected  1 1 1 1 1 1 one well stand pipe a	Color Odor Turbidity Sheen/Fr	Preservative NaOH none HNO3 HNO3  Yes Yes Yes Yes Yes Yes Yes Yes	pH 12 <2 <2 <2 <5 S S S S S S S S S S S S S S S S S S	A C A C A C A C A C A C No No No No No No No No No No	
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Cl  Well identification number well covers and locks in go ls the well stand pipe vertic ls the concrete pad and su Are soils surrounding the w ls the PVC well casing in g ls there standing water in tils the stand pipe vented at Does the total depth of the	hecklist:  clearly marked?  condition and secure?  cally aligned and secure?  vell pad eroded?  plood condition?  the annular space between the the base to provide drainage well sounded correspond wi	# Collected  1 1 1 1 1 1 one well stand pipe a se?	Color Odor Turbidity Sheen/Fr	Preservative NaOH none HNO3 HNO3  Yes Yes Yes Yes Yes Yes Yes Yes	pH 12 <2 <2 <2 <5 S S S S S S S S S S S S S S S S S S	A C A C A C A C A C A C No No No No No No No No No No	
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Cd  Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Cl  Well identification number of Well covers and locks in go Is the well stand pipe vertic Is the concrete pad and su Are soils surrounding the wall stand pipe vented at Does the total depth of the NOTES: Top of casing	Container Type plastic plastic plastic plastic plastic plastic condition and secure?	# Collected  1 1 1 1 1 1 one well stand pipe a se?	Color Odor Turbidity Sheen/Fr	Preservative NaOH none HNO3 HNO3  Yes Yes Yes Yes Yes Yes Yes Yes	pH 12 <2 <2 <2 <5 S S S S S S S S S S S S S S S S S S	A C A C A C A C A C A C No No No No No No No No No No	

BRIEN & GERE ENGINEER	S, INC.		Ground Wa	ater Sampling Log			
Date: 10-21-4				Weather:			
Site Name: Inland Realty				Well Number:		GMW-6S	
Site Location Maryville, MO			_	Project Number:		".005"	
Personnel: William Wright				Evacuation Method			
Whater level o	enly						
Depth of Well *	21.55 ft.	Water Vol	ume /ft. for:				
	8. // ft.	X	2" Diamete	er Well = 0.163 X LV	VC		
ength of Water Column	ft.		4" Diamete	er Well = 0.653 X LV	VC		
/olume of Water in Well	gal.(s)		6" Diamete	er Well = 1.469 X LV	VC		
X Volume of Water in Well	gal.(s)						
,		Volume re	emoved before	ore sampling			gal.(s)
		Did well g	o dry?	Yes		No	
							(Other, Specify)
Measurements taken from	X Top of W	/ell Casing		Top of Protective C	asing		(0)
Mater peremeters:							
Vater parameters:							
Temperatur	e Reading	4.0.04	pH Readin	g		Con	ductivity Reading
		4.0 Stand				84 S Stan	, ndard
		7.0 Stand					
		10.0 Stan	aara				tandard
	initial	initial	/ L \		-61-	initial	(aal.)
after(gal.)		after	_ (gal.)		after		(gal.)
after(gal.)		after	_ (gal.)		after		(gal.)
after(gal.)		after	_ (gal.)		after		(gal.)
after(gal.)		after	_ (gal.)		after		(gal.)
after(gal.)		after	_ (g <b>a</b> l.)		after		(gal.)
Time Collected:  Physical Appearance at Start	]		Physical A	Appearance at Sam	pling	]	
Color			Color				
			Odor				
Turbidity (> 100 NTUs)				> 100 NTU's)			
				ee Product			
	Hex Cr, CN, Hg, Mn, Ni	, Pb, Zn	Filtered	Preservative	рН	Temp.	Conductivity
Container Size	Container Type	# Collected	no	NaOH	-	4 C	- Consuderity
500 ml	plastic	1	no	none	12	4 C	
500 ml	plastic	1	no	HNO3	<2	4 C	
500 ml	plastic	1	no	HNO3	<2	4 C	
1 liter	platic	1	110	111403	12	1 0	
					-		
Monitoring Well Integrity Chec Well identification number clea Well covers and locks in good	arly marked?			Ye	s V	_ No	) )
Is the well stand pipe vertically	aligned and secure?			Ye	s	No	
Is the concrete pad and surface	re seal in good condition?	>		Ye	s	- No	
Are soils surrounding the well	nod proded?			Ye	s	- No	
Are soils surrounding the Well	pau eroueu?			Va	S	- No	
Is the PVC well casing in good	a condition /		and PVC as	eing? Ve		- No	
Is there standing water in the	annular space between tr	ne well stand pipe	and FVC ca	oniy :	is V	- No	
Is the stand pipe vented at the	base to provide drainage	8/		te	5		
Does the total depth of the we	II sounded correspond wi	ith original well cor	npietion aep	tris / Y 6		_ 140	
NOTES: Top of casing el	evation: 992.42						
Denth to Ground	Water: 8.11						
Ground Water F	levation: 984.31						

BRIEN & GERE ENGIN	EERS, INC.		Grour	nd Water Sampling	Log		
eate: /6-26-	9 9			Weather:			
ite Name: Inland Realt				Well Number		GMW-6D	
ite Location Maryville, M	0			Project Numb		".005"	
ersonnel: William W	(right			Evacuation N		.000	
,				Evacuation			
Wates lendon		,					
epth of Well *	28.65 ft.		Water Volume /ft	. for: ameter Well = 0.16	2 × 114/0		
epth to Water *	8.20 ft.						
ength of Water Column	ft.	ă l		meter Well = 0.65			
olume of Water in Well X Volume of Water in We	gal.(s) ell gal.(s)	1	6 Dia	ameter Well = 1.46	9 X LVVC		
A volume of vvaler in vvi	gai.(s)		Volume removed	before sampling			gal.(s)
			Did well go dry?		Yes		
							(Other, Specify)
Measurements taken from	m X T	op of Well Casir	ng	Top of Prote	ctive Casing		(-,, -,-,-,,
Vater parameters:		ſ			1		
Tempe	erature Reading		pH R	eading		Cone	ductivity Reading
			4.0 Standard				×
			7.0 Standard			84 S Stan	dard
			10.0 Standard			1413 S St	andard
	initial		initial			initial	
after (g		after	(gal.)		afte	r	(gal.)
after(		after	(gal.)		afte	r	(gal.)
after (	ial.)	after	(gal.)		afte	r	(gal.)
after (g		after	(gal.)		afte	r	(gal.)
	jal.)		(gal.)				(gal.)
Color Odor Furbidity (> 100 NTUs) _ Sheen/Free Product _			Turbi				
Sample Parameters: Container Size	cd, Cr, Hex Cr, CN, Hg,	Mn, Ni, Pb, Zn	ollected Filts	ered Preserva	ative pH	Temp.	Conductivity
500 ml	plastic	/pe # Co	no no	NaOH	1	2 4 C	Conductivity
500 ml	plastic	1	no	none		4 C	
500 ml	plastic	1		HNO3	<2	4 C	
1 liter	platic	1	no	HNO3	<2	4 C	
						-	
Monitoring Well Integrity	r clearly marked?	w.ro2			Yes V	No No	
Well identification number	good condition and sec	re?			Yes		
Well covers and locks in	tically aligned and secu	. •			Yes		
Well covers and locks in s the well stand pipe ver	tically aligned and secu	ndition?					
Well covers and locks in s the well stand pipe ver s the concrete pad and s	surface seal in good cor	ndition?			Yes	No	
Well covers and locks in s the well stand pipe ver s the concrete pad and s	surface seal in good cor well pad eroded?				Yes		
Well covers and locks in is the well stand pipe ver is the concrete pad and search soils surrounding the is the PVC well casing in	surface seal in good cor well pad eroded? good condition?				Yes	No	
Well covers and locks in s the well stand pipe ver s the concrete pad and s Are soils surrounding the s the PVC well casing in s there standing water in	surface seal in good cor well pad eroded? good condition?the annular space beto	ween the well st	tand pipe and PV	C casing?	Yes Yes	No	~
Well covers and locks in s the well stand pipe ver s the concrete pad and s Are soils surrounding the s the PVC well casing in s there standing water in s the stand pipe vented.	surface seal in good cor well pad eroded? good condition? the annular space beto at the base to provide d	ween the well st	and pipe and PV	C casing?	YesYes	No No No	~
Well covers and locks in s the well stand pipe ver s the concrete pad and s Are soils surrounding the s the PVC well casing in s there standing water in s the stand pipe vented Does the total depth of the NOTES:  Top of casi	surface seal in good cor well pad eroded? good condition?the annular space beto at the base to provide die well sounded corresponded levation:	ween the well st trainage?ond with origina	and pipe and PV	C casing?	YesYes	No No No	<u> </u>
Vell covers and locks in a the well stand pipe versite concrete pad and stare soils surrounding the stare PVC well casing in a there standing water in the stand pipe vented poes the total depth of the NOTES:  Top of casing pipe to General Poets to General Poets in the General Poets in the Stand Poets the total depth of the NOTES:  Top of casing pipe vented Poets in the General Poets in the Stand Poets in the	surface seal in good cor well pad eroded? good condition? the annular space beto at the base to provide d e well sounded corresp	ween the well st	and pipe and PV	C casing?	YesYes	No No No	<u> </u>

Date: 10-26-49	RS, INC.		Ground Wa	iter Sampling Log			
			1	Weather:			
	-		,	Well Number:		GMW-7	
Site Name: Inland Realty			_		3050	".005"	
Site Location Maryville, MO				Project Number:		.003	
ersonnel: William Wright			_ t	Evacuation Method:			
water level or	ly						
Depth of Well * Depth to Water * Length of Water Column	27.87 ft. /0.12 ft. ft.	Water Vol X	4" Diameter	r Well = 0.163 X LW r Well = 0.653 X LW	VC		
olume of Water in Well	gal.(s)		6" Diamete	r Well = 1.469 X LV	VC		
X Volume of Water in Well	gal.(s)	\/aluma rc	emoved before	re campling			gal.(s)
		Did well g		Yes		No	941.(0)
		Dia Well 9	o dry :	, 55			(0), (1)
Measurements taken from	X Top of W	ell Casing		Top of Protective C	asing		(Other, Specify)
Vater parameters:					1		
Townsetu	so Ponding		pH Reading	0		Con	ductivity Reading
Temperatu	re Reading	4.0 Stand		4		0011	ductivity reducing
		7.0 Stand				84 S Stan	dard
		10.0 Stand	-			1413 S S	
	initial	initial				initial	
after (gal.)		after	(gal.)		after		(gal.)
after (gal.)		after			after		(gal.)
after (gal.)		after			after		(gal.)
after (gal.)		after			after		(gal.)
after (gal.)		after	_ (gal.)		after		(gal.)
Water Sample: Time Collected:			Physical A	Appearance at Samp	olina	1	
Physical Appearance at Start			Filysical A	ppearance at Samp	Jiiig	1	
Color			Color				
Odor			Odor				
Turbidity (> 100 NTUs)				> 100 NTU's)			
Sheen/Free Product			Sneen/Fre	ee Product	-		
	Cr, Hex Cr, CN, Hg, Mn, Ni	, Pb, Zn	<b>5</b> 34	- Decembrative	- nH	Temp.	Conductivity
		40."		Preservative	pH		Conductivity
Container Size	Container Type	# Collected	Filtered	NaOH	17	14 C	
Container Size 500 ml	plastic	1	no	NaOH	12	4 C	
Container Size 500 ml 500 ml	plastic plastic	1	no no	none		4 C	
Container Size 500 ml 500 ml 500 ml	plastic plastic plastic	1 1 1	no no no	none HNO3	<2	4 C 4 C	
Container Size 500 ml 500 ml	plastic plastic	1	no no	none		4 C	
Container Size 500 ml 500 ml 500 ml	plastic plastic plastic	1 1 1	no no no	none HNO3	<2	4 C 4 C	
Container Size 500 ml 500 ml 500 ml	plastic plastic plastic	1 1 1	no no no	none HNO3	<2	4 C 4 C	
Container Size 500 ml 500 ml 500 ml	plastic plastic plastic	1 1 1	no no no	none HNO3	<2	4 C 4 C	
Container Size 500 ml 500 ml 500 ml	plastic plastic plastic	1 1 1	no no no	none HNO3	<2	4 C 4 C	
Container Size 500 ml 500 ml 500 ml	plastic plastic plastic plastic platic	1 1 1	no no no	none HNO3	<2	4 C 4 C	
Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check	plastic plastic plastic plastic platic platic	1 1 1 1 1	no no no no	none HNO3 HNO3	<2 <2 <2	4 C 4 C 4 C	
Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number cle	plastic plastic plastic plastic platic platic  cklist:	1 1 1 1 1	no no no no	none HNO3 HNO3	<2 <2 <2 s	4 C 4 C 4 C	
Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number cle	plastic plastic plastic plastic platic  platic  cklist:	1 1 1 1 1	no no no no	none HNO3 HNO3  Ye Ye	<2   <2   <2	4 C 4 C 4 C	D
Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number cle Well covers and locks in good	plastic plastic plastic plastic platic  platic  cklist: early marked?	1 1 1 1 1	no no no no	none HNO3 HNO3 Ye Ye Ye Ye	<2 <2 <2	4 C 4 C 4 C	<u></u>
Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number cle Well covers and locks in good Is the well stand pipe verticall Is the concrete pad and surfa	plastic plastic plastic plastic platic  platic  cklist: early marked?	1 1 1 1 1	no no no no	none HNO3 HNO3 Ye Ye Ye Ye Ye Ye	<2 <2 <2	4 C 4 C 4 C	<u></u>
Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number cle Well covers and locks in good Is the well stand pipe vertical Is the concrete pad and surfa	plastic plastic plastic plastic platic  platic  cklist: early marked? d condition and secure? lly aligned and secure? ace seal in good condition?	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	no no no no	none HNO3 HNO3 Ye Ye Ye Ye Ye Ye Ye	<2 <2 <2 s s s s s s s s s s s s s s s s	4 C 4 C 4 C	
Container Size  500 ml  500 ml  500 ml  1 liter  Monitoring Well Integrity Check Well identification number cle Well covers and locks in good Is the well stand pipe verticall Is the concrete pad and surfa Are soils surrounding the well Is the PVC well casing in good	plastic plastic plastic plastic platic platic  cklist: early marked? d condition and secure? lly aligned and secure? ace seal in good condition? ll pad eroded? od condition?	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	no no no no	none HNO3 HNO3 Ye Ye Ye Ye Ye Ye Ye Ye	<2 <2 <2 <2 s s s s s s s s s s s s s s	4 C 4 C 4 C	
Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number clee Well covers and locks in good is the well stand pipe verticall is the concrete pad and surfate Are soils surrounding the wells the PVC well casing in good is the PVC well casing in good the power of the power	plastic plastic plastic plastic platic platic  cklist: early marked? d condition and secure? ly aligned and secure? ace seal in good condition? ll pad eroded? d condition?	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	no no no no	rone HNO3 HNO3 Ye	<2 <2 <2 <2 <5 × × × × × × × × × × × × × × × × × ×	4 C 4 C 4 C	
Container Size  500 ml  500 ml  500 ml  1 liter  Monitoring Well Integrity Check Well identification number clee Well covers and locks in good is the well stand pipe verticall is the concrete pad and surfate Are soils surrounding the wells the PVC well casing in good is there standing water in the latter standing water at the latter standing water w	plastic plastic plastic plastic plastic platic  cklist:  cklist:  carly marked? d condition and secure? ly aligned and secure? lip ad eroded? lip ad eroded? ace seal in good condition? lip ad eroded? anular space between the base to provide drainage	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	no no no no	none	<2 <2 <2 <2 <	4 C 4 C 4 C	
Container Size 500 ml 500 ml 500 ml 1 liter  Monitoring Well Integrity Check Well identification number cle Well covers and locks in good Is the well stand pipe verticall Is the concrete pad and surfa Are soils surrounding the well Is the PVC well casing in good	plastic plastic plastic plastic plastic platic  cklist:  cklist:  carly marked? d condition and secure? ly aligned and secure? lip ad eroded? lip ad eroded? ace seal in good condition? lip ad eroded? anular space between the base to provide drainage	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	no no no no	none	<2 <2 <2 <2 <	4 C 4 C 4 C	
Container Size  500 ml  500 ml  500 ml  1 liter  Monitoring Well Integrity Check Well identification number cle Well covers and locks in good Is the well stand pipe verticall Is the concrete pad and surfa Are soils surrounding the wel Is the PVC well casing in good Is there standing water in the Is the stand pipe vented at th Does the total depth of the well	plastic plastic plastic plastic plastic platic  cklist: early marked? d condition and secure? ly aligned and secure? lace seal in good condition? ll pad eroded? eannular space between the base to provide drainage sell sounded correspond with	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	no no no no	none	<2 <2 <2 <2 <	4 C 4 C 4 C	
Container Size  500 ml  500 ml  500 ml  1 liter  Monitoring Well Integrity Check Well identification number clee Well covers and locks in good is the well stand pipe verticall is the concrete pad and surfate Are soils surrounding the wells the PVC well casing in good is there standing water in the latter standing water at the latter standing water w	plastic plastic plastic plastic plastic platic  platic  cklist:  early marked? d condition and secure? lly aligned and secure? ll pad eroded? eace seal in good condition? ll pad eroded? e annular space between the base to provide drainage ell sounded correspond with the base ell sounded corresp	1 1 1 1 1 1  ne well stand pipe e?	no no no no	none	<2 <2 <2 <2 <	4 C 4 C 4 C	

O'BRIEN & GERE ENGINEER	S, INC.		Ground Wat	ter Sampling Log			
Date: /0-24-99 Site Name: Inland Realty Site Location Maryville, MO			_ V	Veather: Vell Number: Project Number:	3050	PZ-1 ".005"	
Depth of Well *	clonly 20.32 ft.	1 Commercial Commercia	ume /ft. for:	Evacuation Method			
Depth to Water * Length of Water Column Volume of Water in Well 3X Volume of Water in Well	/ <u>/ 5 7</u> ft. ft. gal.(s) gal.(s)	X	4" Diameter 6" Diameter	Well = 0.163 X LV Well = 0.653 X LV Well = 1.469 X LV	VC		
		Did well g		Yes		No _	al.(s) —— Other, Specify)
*Measurements taken from	X Top of W	ell Casing		Γορ of Protective C	asing		
Water parameters: Temperatu	re Reading	4.0 Stand 7.0 Stand	ard _			84 S Standa	
after (gal.)	initial	10.0 Stan initial after	_		after	initial (g	gal.)
after (gal.) after (gal.) after (gal.) after (gal.)		after after after	_ (gal.) _ (gal.) _ (gal.)		after after	(9	gal.) gal.) gal.) gal.)
Water Sample: Time Collected:					1		
Physical Appearance at Start			Physical Ap	pearance at Samp	oling		
Color Odor Turbidity (> 100 NTUs) Sheen/Free Product			Color Odor Turbidity (> Sheen/Free	· 100 NTU's) e Product			
Sample Parameters: Ground	nd Water Elevation Only						
Container Size	Container Type	# Collected	Filtered	Preservative	pH	Temp.	Conductivity
			-				
Monitoring Well Integrity Chec Well identification number clea Well covers and locks in good	arly marked?			Ye:	s 🏏	No_ No_ No_	
Is the well stand pipe vertically is the concrete pad and surfar Are soils surrounding the well is the PVC well casing in good	ce seal in good condition?  pad eroded?			Ye:	s <u>4</u> /	_ NO _ No _ No _ No _	
Is the PVC well casing in good is there standing water in the is the stand pipe vented at the Does the total depth of the well	annular space between the	e well stand pipe a	and PVC casi	ng?Ye	S S	No _ No _ No _	
NOTES: Top of casing e Depth to Ground	levation: 1001.66 d Water: 1/- 5	7					

D'BRIEN & GERE ENGINEER	S INC.		Ground Wat	ter Sampling Log				
,								
Date: 10-26-99	2			Veather:				
Site Name: Inland Realty				Vell Number:		PZ-2		
Site Location Maryville, MO				roject Number:		".005"		
Personnel: William Wright	2		_ =	vacuation Method				
Whites and	of only							
	20.32 ft.	Mater Vol	ume /ft. for:					
Depth of Well * Depth to Water *	7/-/4 ft.	X		Well = 0.163 X LV	VC.			
Length of Water Column	7777 ft.	^		Well = 0.653 X LV				
Volume of Water in Well	gal.(s)			Well = 1.469 X LV				
3X Volume of Water in Well	gal.(s)	L	o Biarriotor	7. 100 / 21				
syt voiding of trater in train	ga(0)	Volume re	emoved before	e sampling			gal.(s)	
		Did well g	o dry?	Yes		No		
						_		
							(Other, Specify)	
Measurements taken from	X Top of We	ell Casing	Т	Top of Protective C	asing			
Vater parameters:					1			
	Davidia di		-11.0			0	luctivity Decale	
Temperatu	re Reading	4.0.01-	pH Reading			Conc	ductivity Reading	
		4.0 Stand	THE COLUMN TWO IS NOT			84 S Stan	dard	
		7.0 Stand 10.0 Stan			1	1413 S St		
	initial	initial	uaiu _			initial	undaru	
after (gal.)	miliai	after	(gal.)		after		(gal.)	
after (gal.)		after			after		(gal.) (gal.)	
after (gal.)		after			after		(gal.)	
after (gal.)		after			after		(gal.)	
after (gal.)		after	(gal.)		after		(gal.)	
Water Sample:								
Time Collected:								
			Discourse 1 A		lia a	Í		
Physical Appearance at Start			Physical Ap	ppearance at Samp	oling			
Physical Appearance at Start	3			ppearance at Samp	oling			
Physical Appearance at Start Color	]		Color	opearance at Samp	oling			
Physical Appearance at Start Color Odor			Color Odor		oling			
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs)			Color Odor	100 NTU's)	oling			
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs)			Color Odor Turbidity (>	100 NTU's)	bling			
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product			Color Odor Turbidity (>	100 NTU's)	bling			
Physical Appearance at Start  Color  Odor  Turbidity (> 100 NTUs)  Sheen/Free Product			Color Odor Turbidity (>	100 NTU's)	bling			
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Cample Parameters: Ground	nd Water Elevation Only		Color Odor Turbidity (> Sheen/Free	· 100 NTU's) e Product		Temp.	Conductivi	у
Physical Appearance at Start  Color  Odor  Furbidity (> 100 NTUs)  Sheen/Free Product		# Collected	Color Odor Turbidity (> Sheen/Free	· 100 NTU's) e Product		Temp.	Conductivi	У
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Cample Parameters: Ground	nd Water Elevation Only		Color Odor Turbidity (> Sheen/Free	· 100 NTU's) e Product		Temp.	Conductivi	У
Physical Appearance at Start Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Groun	nd Water Elevation Only		Color Odor Turbidity (> Sheen/Free	· 100 NTU's) e Product		Temp.	Conductivi	У
Color Codor Curbidity (> 100 NTUs) Cheen/Free Product  Color Curbidity (> 100 NTUs) Cheen/Free Product  Color Curbidity (> 100 NTUs) Cu	nd Water Elevation Only		Color Odor Turbidity (> Sheen/Free	· 100 NTU's) e Product		Temp.	Conductivi	У
Physical Appearance at Start  Color Odor Furbidity (> 100 NTUs) Sheen/Free Product  Cample Parameters: Ground	nd Water Elevation Only		Color Odor Turbidity (> Sheen/Free	· 100 NTU's) e Product		Temp.	Conductivi	У
Physical Appearance at Start  Color Odor Furbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Groun	nd Water Elevation Only		Color Odor Turbidity (> Sheen/Free	· 100 NTU's) e Product		Temp.	Conductivi	У
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Groun	nd Water Elevation Only		Color Odor Turbidity (> Sheen/Free	· 100 NTU's) e Product		Temp.	Conductivi	У
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Groun	nd Water Elevation Only		Color Odor Turbidity (> Sheen/Free	· 100 NTU's) e Product		Temp.	Conductivi	У
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Groun	nd Water Elevation Only		Color Odor Turbidity (> Sheen/Free	· 100 NTU's) e Product		Temp.	Conductivi	У
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Ground	nd Water Elevation Only		Color Odor Turbidity (> Sheen/Free	· 100 NTU's) e Product		Temp.	Conductivi	У
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Groun  Container Size	Container Type		Color Odor Turbidity (> Sheen/Free	· 100 NTU's) e Product		Temp.	Conductivi	У
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Groun  Container Size	Container Type		Color Odor Turbidity (> Sheen/Free	· 100 NTU's) e Product		Temp.	Conductivi	У
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Container Size  Monitoring Well Integrity Check	Container Type  Container Type  Cklist:	# Collected	Color Odor Turbidity (> Sheen/Free	Preservative	pH			y
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Groun  Container Size  Monitoring Well Integrity Check  Well identification number clea	Container Type  Container Type  cklist:	# Collected	Color Odor Turbidity (> Sheen/Free	Preservative	pH	No		y
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Groun  Container Size  Monitoring Well Integrity Check Well identification number clea	Container Type  Container Type  cklist:  arly marked?	# Collected	Color Odor Turbidity (> Sheen/Free	Preservative  Yes	pH	No No		Y
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Groun  Container Size  Monitoring Well Integrity Check Well identification number clea Well covers and locks in good Is the well stand pipe vertically	Container Type  Container Type  cklist:  arly marked?	# Collected	Color Odor Turbidity (> Sheen/Free	Preservative  Preservative  Yeservative	pH	No No		y
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Groun  Container Size  Monitoring Well Integrity Check Well identification number clea Well covers and locks in good Is the well stand pipe vertically Is the concrete pad and surface	Container Type  Container Type  cklist:  arly marked?	# Collected	Color Odor Turbidity (> Sheen/Free	Preservative  Preservative  Yes  Yes	pH ss	No No		y
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Groun  Container Size  Monitoring Well Integrity Check Well identification number cleated with the well stand pipe vertically is the concrete pad and surface Are soils surrounding the well	Container Type  Container Type  cklist:  arly marked?	# Collected	Color Odor Turbidity (> Sheen/Free	Preservative  Preservative  Yes  Yes  Yes	pH ss	No No No No No		y
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Groun  Container Size  Monitoring Well Integrity Check Well identification number clea Well covers and locks in good Is the well stand pipe verticall Is the concrete pad and surface Are soils surrounding the well Is the PVC well casing in good	Container Type  Container Type  cklist:  arly marked?	# Collected	Color Odor Turbidity (> Sheen/Free	Preservative  Preservative  Yes  Yes  Yes  Yes  Yes  Yes	ss s	No No No No No		У
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Groun  Container Size  Monitoring Well Integrity Check Well identification number clea Well covers and locks in good Is the well stand pipe vertically Is the concrete pad and surface Are soils surrounding the well Is the PVC well casing in good Is there standing water in the	cklist: arly marked?	# Collected	Color Odor Turbidity (> Sheen/Free	Preservative  Preservative  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Y	pH	No No No No No		У
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Groun  Container Size  Monitoring Well Integrity Check Well identification number cleated the Well covers and locks in good Is the well stand pipe vertically Is the concrete pad and surface Are soils surrounding the well Is the PVC well casing in good Is there standing water in the Is the stand pipe vented at the stand pipe vented	cklist: arly marked?	# Collected  # Collected	Color Odor Turbidity (> Sheen/Free	Preservative  Preservative  Yes Yes Yes Yes Yes Yes Yes Yes Yes Y	ss ss s ss s s s s s s	No No No No No No No		У
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Container Size  Container Size  Monitoring Well Integrity Check Well identification number cleat Well covers and locks in good is the well stand pipe vertically is the concrete pad and surface. Are soils surrounding the well is the PVC well casing in good is there standing water in the is the stand pipe vented at the stand pipe vented pipe vente	cklist: arly marked?	# Collected  # Collected	Color Odor Turbidity (> Sheen/Free	Preservative  Preservative  Yes Yes Yes Yes Yes Yes Yes Yes Yes Y	ss ss s ss s s s s s s	No No No No No No No		У
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Groun  Container Size  Monitoring Well Integrity Check Well identification number cleated with the well stand pipe vertically is the well stand pipe vertically is the PVC well casing in good is there standing water in the is the stand pipe vented at the Does the total depth of the well be total depth of the well case the total depth of the total	Container Type  Container Type  Cklist:  arly marked?	# Collected  # Collected	Color Odor Turbidity (> Sheen/Free	Preservative  Preservative  Yes Yes Yes Yes Yes Yes Yes Yes Yes Y	ss ss s ss s s s s s s	No No No No No No No		У
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Groun  Container Size  Monitoring Well Integrity Check Well identification number cleated with the well stand pipe vertically is the well stand pipe vertically is the PVC well casing in good is the PVC well casing in good is there standing water in the is the stand pipe vented at the Does the total depth of the well NOTES: Top of casing elements.	Container Type  Container Type  Cklist:  Carly marked?	# Collected  # Collected	Color Odor Turbidity (> Sheen/Free	Preservative  Preservative  Yes Yes Yes Yes Yes Yes Yes Yes Yes Y	ss ss s ss s s s s s s	No No No No No No No		У
Physical Appearance at Start  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Groun  Container Size  Monitoring Well Integrity Check Well identification number clea Well covers and locks in good Is the well stand pipe vertically Is the concrete pad and surfact Are soils surrounding the well Is the PVC well casing in good Is there standing water in the Is the stand pipe vented at the Does the total depth of the well	cklist: arly marked?	# Collected  # Collected	Color Odor Turbidity (> Sheen/Free	Preservative  Preservative  Yes  Yes  Yes  Yes  Yes  Yes  Yes  Y	ss ss s ss s s s s s s	No No No No No No No		у

O'BRIEN & GERE ENGINEE	RS, INC.		Ground Wat	er Sampling Log			
Date: 20-24-9 Site Name: Inland Realty Site Location Maryville, MO Personnel: William Wrig	9		W	Veather: Vell Number: Project Number: Evacuation Method	3050	PZ-3 ".005"	
Depth of Well * Depth to Water * Length of Water Column Volume of Water in Well 3X Volume of Water in Well	20.28 ft.  8.5/ft. ft. gal.(s) gal.(s)	X	4" Diameter		NC	No	gal.(s)
*Measurements taken from	X Top of W	Vell Casing		op of Protective C			(Other, Specify
Water parameters:							
	ture Reading initial	4.0 Sta 7.0 Sta 10.0 St initial	ndard andard		after	84 S Stan 1413 S St initial	andard
after(gal. after (gal.	)	after after after	(gal.) (gal.) (gal.)		after after after		(gal.) (gal.) (gal.)
after (gal. after (gal. after Time Collected:	)	after	(gal.)(gal.)		after after		(gal.) (gal.)
after (gal. after (gal. after (gal. gal. gal. gal. gal. gal. gal. gal.	)	after	(gal.) (gal.)  Physical Ap  Color Odor Turbidity (>	ppearance at Sam	after		(gal.)
after(gal. after(gal. after(gal. after(gal. Water Sample: Time Collected:  Physical Appearance at Star  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product	)	after	(gal.) (gal.)  Physical Ap	100 NTU's)	after		(gal.)
after(gal. after(gal. after(gal. after(gal. Water Sample: Time Collected:  Physical Appearance at Star  Color Odor Turbidity (> 100 NTUs) Sheen/Free Product	) ) rt	after	(gal.) (gal.)  Physical Ap  Color Odor Turbidity (>	100 NTU's)	after		(gal.) (gal.)  Conductiv
after(gal. after(gal. after(gal. after(gal. gal. Water Sample: Time Collected:  Physical Appearance at Star Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Gro	nt	after	(gal.) (gal.)  Physical Ap  Color Odor Turbidity (> Sheen/Free	100 NTU's) Product	after		(gal.)
after(gal. after(gal. after(gal. after(gal. gal. Water Sample: Time Collected:  Physical Appearance at Star Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Gro	nt	after	(gal.) (gal.)  Physical Ap  Color Odor Turbidity (> Sheen/Free	100 NTU's) Product	after		(gal.)
after(gal. after(gal. after(gal. after(gal. gal. Water Sample: Time Collected:  Physical Appearance at Star Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Gro	nt	after	(gal.) (gal.)  Physical Ap  Color Odor Turbidity (> Sheen/Free	100 NTU's) Product	after		(gal.)
after(gal. after(gal. after(gal. after(gal. gal. Water Sample: Time Collected:  Physical Appearance at Star Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Gro	nt	after	(gal.) (gal.)  Physical Ap  Color Odor Turbidity (> Sheen/Free	100 NTU's) Product	after		(gal.)
after(gal. after(gal. after(gal. after(gal. gal. Water Sample: Time Collected:  Physical Appearance at Star Color Odor Turbidity (> 100 NTUs) Sheen/Free Product  Sample Parameters: Gro	nt	after	(gal.) (gal.)  Physical Ap  Color Odor Turbidity (> Sheen/Free	100 NTU's) Product	after		(gal.)
after	und Water Elevation Only Container Type	after	(gal.) (gal.)  Physical Ap  Color Odor Turbidity (> Sheen/Free	100 NTU's) Product	after		(gal.)
after	und Water Elevation Only  Container Type  ecklist:  learly marked?	afterafter	(gal.) (gal.)  (gal.)  Color Odor Turbidity (> Sheen/Free	100 NTU's) Product  Preservative  Ye	pling pH	Temp.	Conductiv
after	ecklist:  learly marked?od condition and secure?lly aligned and secure?lally aligned and secure aligned aligned and secure aligned aligned aligned and secure aligned al	after	(gal.) (gal.)  Physical Ap  Color Odor Turbidity (> Sheen/Free	Preservative  Preservative  Ye  Ye  Ye  Ye  Ye  Ye	pling pH	Temp.	Conductiv

Sign to Water   Fig.   Column   Fig.   Column   Fig.   F	Name: Inland Realty  Location Maryville, MO  William Wright  Location William Wright  In of Well *  In to Water *  Ith of Water Column  In e of Water in Well  Dolume of Water in Well  Solume of Wa
Water Volume /ft. for.   X 2" Diameter Well = 0.163 X LWC   A" Diameter Well = 1.469 X LWC   A" Diameter Well = 1.469 X LWC   A" Diameter Well = 1.469 X LWC   Yolume of Water in Well   Qal.(s)   Yes   No   No   Water parameters:    Valuer parameters:   Temperature Reading   A.0 Standard   A.0 Standard   A.13 S Standard   A.13 S Standard   A.13 S Standard   A.14 S S Standard	n of Well * n to Water * th of Water Column me of Water in Well polume of Water in Well gal.(s) gal.(s)  Surrements taken from  X Top of Mater in Well
Measurements taken from   X   Top of Well Casing   Top of Protective Casing   Top of Protective Casing   Other, Specify	er parameters:
Temperature Reading	
Temperature Reading	
After   (gal.)   Afte	e 117 h
Color	after (gal.) after (gal.) after (gal.) after (gal.)
Sample Parameters: Ground Water Elevation Only	r oidity (> 100 NTUs)
	pple Parameters: Ground Water Elevation C
Container Size Container Type # Collected Filtered Preservative pH Temp. Conductivit	Container Size Container Type

Laboratory analytical reports

## American Technical & Analytical Services, inc.

875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 • FAX (314) 434-0080

June 17, 1999

William E. Wright O'Brien & Gere Engineers, Inc. 5000 Cedar Plaza Parkway St. Louis, MO 63128

RE: ATAS #26482.01-#26482.14 #3050.005 - Inland Realty Co, Maryville, Missouri

Dear Mr. Wright:

Enclosed are the analytical reports for the samples received in our laboratory on April 26, 1999.

If, in your review, you should have any questions or require additional information, please call me at (314) 434-4570.

Thank you for choosing ATAS for your analytical needs.

Sincerely,

Ruseal Brewer Project Manager

**Enclosures** 

RB/jp

**ATAS** 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: O'BRIEN & GERE ENGINEERS, INC.

REPORT: 2648201MT(712)

5000 CEDAR PLAZA PARKWAY, SUITE 211

DATE : 06-17-99

ST. LOUIS, MO 63128 ATTN: WILLIAM E. WRIGHT

SAMPLE MATRIX :

WATER

ATAS #

26482.01

DATE SUBMITTED: 04-26-99

PROJECT : #3050.005 - INLAND REALTY CO, MARYVILLE, MISSOURI

SAMPLE ID

: GMW #2S

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
		INOR	GANICS		
TOTAL CYANIDE	0.005	mg/L	0.044	05-05-99	SW 9010
		ME'	TALS		
CADMIUM CHROMIUM LEAD MANGANESE NICKEL ZINC MERCURY	0.005 0.005 0.002 0.005 0.005 0.010 0.0002	mg/L mg/L mg/L mg/L mg/L mg/L	ND ND ND 0.511 0.007 0.010 0.0002	05-10-99 05-10-99 05-20-99 05-20-99 05-20-99 05-20-99	SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 7470



**A7745** 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: O'BRIEN & GERE ENGINEERS, INC.

REPORT: 2648201MT(712)

5000 CEDAR PLAZA PARKWAY, SUITE 211

ST. LOUIS, MO 63128

DATE : 06-17-99

ATTN: WILLIAM E. WRIGHT

SAMPLE MATRIX : WATER ATAS # : 26482.02

DATE SUBMITTED: 04-26-99

PROJECT : #3050.005 - INLAND REALTY CO, MARYVILLE, MISSOURI

SAMPLE ID : GMW #2D

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE				
		INOR	GANICS						
TOTAL CYANIDE	0.005	mg/L	ND	05-05-99	SW 9010				
METALS									
CADMIUM CHROMIUM LEAD MANGANESE NICKEL ZINC MERCURY	0.005 0.005 0.002 0.005 0.005 0.010 0.0002	mg/L mg/L mg/L mg/L mg/L mg/L	ND ND ND 0.576 ND 0.011 0.0002	05-10-99 05-10-99 05-20-99 05-20-99 05-20-99 05-20-99	SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 7470				

REPORT: 2648201MT(712)

5000 CEDAR PLAZA PARKWAY, SUITE 211

DATE : 06-17-99

ST. LOUIS, MO 63128

ATTN: WILLIAM E. WRIGHT

SAMPLE MATRIX : WATER

ATAS #

26482.03

DATE SUBMITTED: 04-26-99

PROJECT : #3050.005 - INLAND REALTY CO, MARYVILLE, MISSOURI

: GMW #3 SAMPLE ID

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
			GANICS		av. colo
TOTAL CYANIDE	0.005	mg/L	0.019	05-05-99	SW 9010
		ME	TALS		
CADMIUM CHROMIUM LEAD MANGANESE NICKEL ZINC MERCURY	0.005 0.005 0.002 0.005 0.005 0.010 0.0002	mg/L mg/L mg/L mg/L mg/L mg/L	0.005 ND ND 1.06 0.005 0.018 ND	05-10-99 05-10-99 05-20-99 05-20-99 05-20-99 05-20-99	SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 7470

## **1745** 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: O'BRIEN & GERE ENGINEERS, INC.

REPORT: 2648201MT(712)

5000 CEDAR PLAZA PARKWAY, SUITE 211

ST. LOUIS, MO 63128

DATE : 06-17-99

ATTN: WILLIAM E. WRIGHT

SAMPLE MATRIX : WATER

ATAS # : 26482.04 DATE SUBMITTED: 04-26-99

PROJECT : #3050.005 - INLAND REALTY CO, MARYVILLE, MISSOURI SAMPLE ID : GMW #3S

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
		INOR	GANICS		
TOTAL CYANIDE	0.005	mg/L	0.066	05-05-99	SW 9010
		ME'	TALS		
CADMIUM CHROMIUM LEAD MANGANESE NICKEL ZINC MERCURY	0.005 0.005 0.002 0.005 0.005 0.010 0.0002	mg/L mg/L mg/L mg/L mg/L mg/L	ND ND ND 0.270 0.008 0.010 ND	05-10-99 05-10-99 05-20-99 05-20-99 05-20-99 05-20-99	SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 7470

REPORT: 2648201MT(712)

5000 CEDAR PLAZA PARKWAY, SUITE 211

ST. LOUIS, MO 63128

DATE : 06-17-99

ATTN: WILLIAM E. WRIGHT

SAMPLE MATRIX : WATER : 26482.05 ATAS #

DATE SUBMITTED: 04-26-99

#3050.005 - INLAND REALTY CO, MARYVILLE, MISSOURI PROJECT :

: GMW #3D SAMPLE ID

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
		INOR	GANICS		
TOTAL CYANIDE	0.005	mg/L	ND	05-05-99	SW 9010
		ME	TALS		
CADMIUM CHROMIUM LEAD MANGANESE NICKEL ZINC MERCURY	0.005 0.005 0.002 0.005 0.005 0.010 0.0002	mg/L mg/L mg/L mg/L mg/L mg/L	ND ND ND 0.655 ND 0.011 ND	05-10-99 05-10-99 05-20-99 05-20-99 05-20-99 05-20-99	SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 7470

**ATAS** 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: O'BRIEN & GERE ENGINEERS, INC.

REPORT: 2648201MT(712)

5000 CEDAR PLAZA PARKWAY, SUITE 211

ST. LOUIS, MO 63128 DATE : 06-17-99

ATTN: WILLIAM E. WRIGHT

SAMPLE MATRIX : WATER ATAS # 26482.06 DATE SUBMITTED: 04-26-99

PROJECT : #3050.005 - INLAND REALTY CO, MARYVILLE, MISSOURI

SAMPLE ID : GMW #4S

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
		INOR	GANICS	6	
TOTAL CYANIDE	0.005	mg/L	0.014	05-05-99	SW 9010
		ME	TALS		
CADMIUM CHROMIUM LEAD MANGANESE NICKEL ZINC MERCURY	0.005 0.005 0.002 0.005 0.005 0.010	mg/L mg/L mg/L mg/L mg/L mg/L	0.009 ND ND 39.4 0.688 1.85 ND	05-10-99 05-10-99 05-20-99 05-20-99 05-20-99 05-20-99	SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 7470

REPORT: 2648201MT(712)

5000 CEDAR PLAZA PARKWAY, SUITE 211

ST. LOUIS, MO 63128

DATE : 06-17-99

ATTN: WILLIAM E. WRIGHT

SAMPLE MATRIX : WATER : 26482.07 ATAS #

DATE SUBMITTED: 04-26-99 : #3050.005 - INLAND REALTY CO, MARYVILLE, MISSOURI PROJECT

: GMW #4D SAMPLE ID

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
TOTAL CYANIDE	0.005	I <b>NOR</b>	GANICS ND	05-05-99	SW 9010
		ME	TALS		
CADMIUM CHROMIUM LEAD MANGANESE NICKEL ZINC MERCURY	0.005 0.005 0.002 0.005 0.005 0.010 0.0002	mg/L mg/L mg/L mg/L mg/L mg/L	ND ND ND 1.35 ND 0.016 ND	05-10-99 05-10-99 05-20-99 05-20-99 05-20-99 05-20-99	SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 7470



REPORT: 2648201MT(712)

O'BRIEN & GERE ENGINEERS, INC. 5000 CEDAR PLAZA PARKWAY, SUITE 211

ST. LOUIS, MO 63128

DATE : 06-17-99

ATTN: WILLIAM E. WRIGHT

SAMPLE MATRIX : WATER

ATAS # : 26482.08

DATE SUBMITTED: 04-26-99

PROJECT : #3050.005 - INLAND REALTY CO, MARYVILLE, MISSOURI

SAMPLE ID : GMW #10

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
		INOR	GANICS		
TOTAL CYANIDE	0.005	mg/L	ND	05-05-99	SW 9010
		ME'	TALS		
CADMIUM CHROMIUM LEAD MANGANESE NICKEL ZINC MERCURY	0.005 0.005 0.002 0.005 0.005 0.010	mg/L mg/L mg/L mg/L mg/L mg/L	ND ND ND ND ND ND	05-10-99 05-10-99 05-20-99 05-20-99 05-20-99 05-20-99	SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 7470

**1715** 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: O'BRIEN & GERE ENGINEERS, INC.

5000 CEDAR PLAZA PARKWAY, SUITE 211

ST. LOUIS, MO 63128

ATTN: WILLIAM E. WRIGHT

DATE : 06-17-99

REPORT: 2648201MT(712)

SAMPLE MATRIX : WATER

ATAS #

: 26482.09

DATE SUBMITTED: 04-26-99

PROJECT : #3050.005 - INLAND REALTY CO, MARYVILLE, MISSOURI

SAMPLE ID

: GMW #5S

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
		INOR	GANICS		
TOTAL CYANIDE	0.005	mg/L	ND	05-05-99	SW 9010
		ME	TALS		
CADMIUM CHROMIUM LEAD MANGANESE NICKEL ZINC MERCURY	0.005 0.005 0.002 0.005 0.005 0.010	mg/L mg/L mg/L mg/L mg/L mg/L	ND ND ND 0.303 0.015 0.015 ND	05-10-99 05-10-99 05-20-99 05-20-99 05-20-99 05-20-99	SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 7470

**A7745** 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: O'BRIEN & GERE ENGINEERS, INC.

REPORT: 2648201MT(712)

5000 CEDAR PLAZA PARKWAY, SUITE 211

ST. LOUIS, MO 63128

DATE : 06-17-99

ATTN: WILLIAM E. WRIGHT

SAMPLE MATRIX : WATER

ATAS # : 26482.10 DATE SUBMITTED: 04-26-99

PROJECT : #3050.005 - INLAND REALTY CO, MARYVILLE, MISSOURI SAMPLE ID : GMW #5D

REPORTING LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE					
	INOR	GANICS							
0.005	mg/L	ND	05-05-99	SW 9010					
METALS									
0.005 0.005 0.002 0.005 0.005	mg/L mg/L mg/L mg/L mg/L	ND ND ND 0.801 ND 0.010	05-10-99 05-10-99 05-20-99 05-20-99 05-20-99	SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 7470					
	0.005 0.005 0.005 0.002 0.005 0.005	LIMIT UNITS  INORGO  0.005 mg/L  0.005 mg/L	INORGANICS   INORGANICS   O.005   mg/L   ND   ND   ND   ND   ND   ND   ND   N	INORGANICS  0.005 mg/L ND 05-05-99  METALS  0.005 mg/L ND 05-10-99 0.005 mg/L ND 05-10-99 0.005 mg/L ND 05-10-99 0.002 mg/L ND 05-20-99 0.005 mg/L ND 05-20-99 0.0010 mg/L 0.010 05-20-99					

mg/L = PARTS PER MILLION(PPM)

ND = NOT DETECTED ABOVE REPORTING LIMIT



REPORT:

2648201MT (712)

5000 CEDAR PLAZA PARKWAY, SUITE 211

DATE : 06-17-99

ST. LOUIS, MO 63128

ATTN: WILLIAM E. WRIGHT

SAMPLE MATRIX : WATER

ATAS #

: 26482.11

DATE SUBMITTED: 04-26-99

PROJECT

#3050.005 - INLAND REALTY CO, MARYVILLE, MISSOURI

: GMW #6S SAMPLE ID

:

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
TOTAL CYANIDE	0.005	INORG	GANICS ND	05-05-99	SW 9010
		ME'	TALS		
CADMIUM CHROMIUM LEAD MANGANESE NICKEL ZINC MERCURY	0.005 0.005 0.002 0.005 0.005 0.010 0.0002	mg/L mg/L mg/L mg/L mg/L mg/L	ND ND ND 0.102 0.007 0.016 0.0009	05-10-99 05-10-99 05-20-99 05-20-99 05-20-99 05-20-99	SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 7470

ND = NOT DETECTED ABOVE REPORTING LIMIT

**A7245** 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: O'BRIEN & GERE ENGINEERS, INC. 5000 CEDAR PLAZA PARKWAY, SUITE 211

REPORT: 2648201MT(712)

DATE : 06-17-99 ST. LOUIS, MO 63128

ATTN: WILLIAM E. WRIGHT

SAMPLE MATRIX : WATER ATAS # : 26482.12 DATE SUBMITTED: 04-26-99

PROJECT : #3050.005 - INLAND REALTY CO, MARYVILLE, MISSOURI

SAMPLE ID : GMW #6D

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
		INOR	GANICS		
TOTAL CYANIDE	0.005	mg/L	ND	05-05-99	SW 9010
		ME'	rals -		
CADMIUM CHROMIUM LEAD MANGANESE NICKEL ZINC MERCURY	0.005 0.005 0.002 0.005 0.005 0.010 0.0002	mg/L mg/L mg/L mg/L mg/L mg/L	ND ND ND 0.144 ND ND ND	05-10-99 05-10-99 05-20-99 05-20-99 05-20-99 05-20-99	SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 7470

2648201MT (712) REPORT:

5000 CEDAR PLAZA PARKWAY, SUITE 211 ST. LOUIS, MO 63128

DATE : 06-17-99

ATTN: WILLIAM E. WRIGHT

SAMPLE MATRIX : WATER

ATAS #

26482.13

DATE SUBMITTED:

04-26-99

PROJECT

: #3050.005 - INLAND REALTY CO, MARYVILLE, MISSOURI

SAMPLE ID : GMW #7

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
		INOR	GANICS		
TOTAL CYANIDE	0.005	mg/L	ND	05-05-99	SW 9010
		ME'	TALS		
CADMIUM CHROMIUM LEAD MANGANESE NICKEL ZINC MERCURY	0.005 0.005 0.002 0.005 0.005 0.010 0.0002	mg/L mg/L mg/L mg/L mg/L mg/L	ND 0.005 ND 0.219 0.009 0.024 ND	05-10-99 05-10-99 05-20-99 05-20-99 05-20-99 05-20-99	SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 7470

**1745** 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: O'BRIEN & GERE ENGINEERS, INC.

REPORT: 2648201MT(712)

5000 CEDAR PLAZA PARKWAY, SUITE 211

ST. LOUIS, MO 63128

ATTN: WILLIAM E. WRIGHT

DATE : 06-17-99

SAMPLE MATRIX : WATER

ATAS # :

26482.14

DATE SUBMITTED: 04-26-99

PROJECT : #3050.005 - INLAND REALTY CO, MARYVILLE, MISSOURI SAMPLE ID : GMW #9

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
		INOR	GANICS		
TOTAL CYANIDE	0.005	mg/L	ND	05-05-99	SW 9010
		ME'	TALS		
CADMIUM CHROMIUM LEAD MANGANESE NICKEL ZINC MERCURY	0.005 0.005 0.002 0.005 0.005 0.010 0.0002	mg/L mg/L mg/L mg/L mg/L mg/L	ND 0.007 ND 0.774 ND 0.010	05-10-99 05-10-99 05-20-99 05-20-99 05-20-99 05-20-99	SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 7470

mg/L = PARTS PER MILLION(PPM)

ND = NOT DETECTED ABOVE REPORTING LIMIT

2648201MT(712) REPORT:

5000 CEDAR PLAZA PARKWAY, SUITE 211

ST. LOUIS, MO 63128

DATE : 06-17-99 ATTN: WILLIAM E. WRIGHT

### QA/QC

DESCRIPTION		PARAMETER	RESULTS
METHOD BLANK	05-05-99 05-10-99 05-10-99 05-20-99 05-20-99 05-20-99 05-03-99	TOTAL CYANIDE CADMIUM CHROMIUM LEAD MANGANESE NICKEL MERCURY MERCURY	<0.005 mg/L <0.005 mg/L <0.005 mg/L <0.002 mg/L <0.005 mg/L <0.005 mg/L <0.0002 mg/L <0.0002 mg/L
CONTROL SPIKE	05-05-99 05-10-99 05-10-99 05-20-99 05-20-99 05-20-99 05-03-99	TOTAL CYANIDE CADMIUM CHROMIUM LEAD MANGANESE NICKEL MERCURY MERCURY	91 % RECOVERY 97 % RECOVERY 95 % RECOVERY 98 % RECOVERY 101 % RECOVERY 100 % RECOVERY 104 % RECOVERY 100 % RECOVERY

Office: St. Louis, MO

Address: 5000 Cedar Plaza Parkway

Phone: (314) 842-4550

## Job No. <u>3050.005</u> Sheet <u>1</u> of <u>\_\_\_\_\_</u>

### **CHAIN OF CUSTODY**

Client: INLAND REALT Location: MARYVILLE,			Collected (Signatur	. , ,	Them &	White wo - 99
SAMPLE DESCRIPTION	Date	Time	Sample Matrix <sup>1</sup>	Sample Type <sup>2</sup>	No. of Containers <sup>3</sup>	ANALYSIS REQUESTED
GMW #2S 12	4/23/19	6900	Water	Grab	1-P, 500 mL	Cyanide (CN) 26432,
GMW #2S	1/23/99	0907)	Water	Grab	1-P, 500 mL	Total lead (Pb) and zinc (Zn)
GMW #2S			Water	Grab	1-P, 500 mL	Hexavalent chromium (Cr <sup>VI</sup> )
GMW #2S /	4/23/99	0900	Water	Grab	1-P, YE SW	Total Metals-Cd, Cr. mercury (Hg), manganese (Mn), Niekel (Ni)
GMW #2D 12	423,49	6918	Water	Grab	1-P, 500 mL	CN
GMW #2D	4/23/99	0918	Water	Grab	1-P, 500 mL	Total Pb and Zn, Mu, NC
GMW #2D			Water	Grab	1-P. 500 mL	Cr <sup>∨ι</sup>
GMW #2D	4/23/99	0918	Water	Grab	1-P. 12 W	Total Metals-Cd, Cr. Hg. Mir. Ni
GMW #3 1Z	4/23/99	1105	Water	Grab	1-P. 500 mL	CN
GMW #3 /	4/23/99	1105	Water	Grab	1-P, 500 mL	Total Pb and Zn Mu Ni
GMW #3			Water	Grab	1-P, 500 mL	Cr <sup>vI</sup>
GMW #3 /	4/23/99	1105	Water	Grab	1-P. Lt SN	Total Metals-Cd, Cr. Hg, Mn. Ni
Maximum Method Detection Li	imits: CN, Cd,	Cr, Mn, N	Ji - 5 ppb; Pb	- 2 ppb; Hg - (	0.2 ppb; Zn - 10 ppl	b

<sup>1</sup>Matrix = water, wastewater, air, sludge, sediment, etc.

<sup>2</sup>Type = grab. composite

<sup>3</sup>Containers = P - polyethylene; G - glass

Chemical Preservatives:

Metals - HNO<sub>3</sub> to pH 2

Cyanide - NaOH to pH 12

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Relinquished by:	Date	Time	Received by:-	reference	Date	Time
of:			of:	ATAS	+2699	1437
Relinquished by:	Date	Time	Received by:		Date	Time
of:		8	of:			
Relinquished by:	Date	Time	Received by:		Date	Time
of:			of:			
Use this space if shipped via courier (e.g., Fed Ex) Relinquished by:	Date	Time	Courier Name:	torne Esques	Date	Time
of: Brien Cere Engineers	423/99	1530	85568 *Attach delivery Custody	02026 y/courier receipt to Chain of	123/	1538
Relinquished by:	Date	Time	Received by:	All son	Date	Time
of:			of:	conterra	424/99	915

Office: St. Louis, MO

Address: 5000 Cedar Plaza Parkway

Phone: (314) 842-4550

Job No. <u>3050.005</u> Sheet <u>2</u> of <u>6</u>

### **CHAIN OF CUSTODY**

Client: INLAND Location: MARY			Collected (Signatur	17	Man E.	Wheth 125-EX	
SAMPLE DESCRI	ρΗ PTION	Date	Time	Sample Matrix <sup>1</sup>	Sample Type <sup>2</sup>	No. of Containers <sup>3</sup>	ANALYSIS REQUESTED
GMW #3S	12	1/23/99	0950	Water	Grab	1-P, 500 mL	Cyanide (CN) 264826
GMW #3S	/	1/23/99	0950	Water	Grab	1-P, 500 mL	Total lead (Pb) and zinc (Zn), Mu N
GMW #3S				Water	Grab	1-P, 500 mL	Hexavalent chromium (Cr <sup>VI</sup> )
GMW #3S	j	4/23/99	0950	Water	Grab	1-PAL SM	Total Metals-Cd, Cr, mercury (Hg), manganese (Mn), Nickel (Ni)
GMW #3D	12	4/23/99	1025	Water	Grab	1-P, 500 mL	CN
GMW #3D	/	4/23/59	1025	Water	Grab	1-P, 500 mL	Total Pb and Zn, Mn, NC
GMW #3D				Water	Grab	1-P. 500 mL	Cr <sup>vi</sup>
GMW #3D	<i>j</i> .	4/23/99	1025	Water	Grab	1-P. XL SW	Total Metals-Cd, Cr, Hg, Mn, Ni-
GMW #4S	8	4/23/99	1210	Water	Grab	1-P. 500 mL	CN
GMW #4S	/	4/23/99	1210	Water	Grab	1-P, 500 mL	Total Pb and Zn Mn, NC
GMW #4S				Water	Grab	1-P, 500 mL	Cr <sup>vI</sup>
GMW #4S	/	4/23/99	1210	Water	Grab	1-P. 1. (a)	Total Metals-Cd, Cr, Hg, Mn, Ni

<sup>&</sup>lt;sup>1</sup>Matrix = water, wastewater, air, sludge, sediment, etc.

<sup>2</sup>Type = grab, composite

Chemical Preservatives:

Metals - HNO<sub>3</sub> to pH 2 Cyanide - NaOH to pH 12

Z.5°C

Relinquished by:	Date	Time	Received by December 1	Date	Time
of:			of: / ATAS 4-	26-97	437
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		
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of:			of:		
Use this space if shipped via courier (e.g., Fed Ex) Relinquished by:	Date	Time	Courier Autorus Capus	Date 199	Time 1538
of: Brien Verengineers	1/25/99	1538	*Attach delivery/courier receipt to Chain of Custody		
Relinquished by:	Date	Time	Received Stoles 12	Date	Time
of:			of: Quarterra	424/99	915

 $<sup>^{3}</sup>$ Containers = P - polyethylene; G - glass

Office: St. Louis, MO

Address: 5000 Cedar Plaza Parkway

Phone: (314) 842-4550

Job No. <u>3050.005</u> Sheet <u>3</u> of <u>6</u>

#### CHAIN OF CUSTODY

Client: INLAND REAL Location: MARYVILLI			Collected (Signatur		Min E. M	Shift 4-26-90
SAMPLE DESCRIPTION	Date	Time	Sample Matrix <sup>1</sup>	Sample Type <sup>2</sup>	No. of Containers	ANALYSIS REQUESTED
GMW #4D 12	1/23/99	1140	Water	Grab	1-P, 500 mL	Cyanide (CN) 2643Z.
GMW #4D	4/23/99	1140	Water	Grab	1-P, 500 mL	Total lead (Pb) and zinc (Zn), Mm, Me
GMW #4D			Water	Grab	1-P, 500 mL	Hexavalent chromium (Cr <sup>VI</sup> )
GMW #4D	4/23/99	1140	Water	Grab	1-P, 500mb	Total Metals-Cd, Cr, mercury (Hg), manganese (Mn), Nickel (Ni)
GMW #3DA			Water	Grab	1-P, 500 mL	CN
GMW #3DA			Water	Grab	1-P, 500 mL	Total Pb and Zn Mn, Ni
GMW #38/A			Water	Grab	1-P, 500 mL	Cr <sup>VI</sup>
CMW #3DA			Water	Grab	1-P. 72	Total Metals-Cd, Cr, Hg, Mn. Ni
GMW #10 /2	4/23/99	1240	Water	Grab	1-P. 500 mL	cn 26482
GMW #10 (	463/99	1240	Water	Grab	1-P, 500 mL	Total Pb and Zn Mm NC
GMW #10		-	Water	Grab	1-P. 500 mL	Cr <sup>VI</sup>
GMW #10 /	14/23/99	1240	Water	Grab	1-P. +C. Co	Total Metals-Cd, Cr, Hg, Mn, Ni
Maximum Method Detection	Limits: CN, Cd.	, Cr, Mn, N	Ni - 5 ppb; Pb	- 2 ppb; Hg -	0.2 ppb; Zn - 10 pp	b

<sup>1</sup>Matrix = water, wastewater, air, sludge, sediment, etc.

<sup>2</sup>Type = grab, composite

Relinquished

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by:

<sup>3</sup>Containers = P - polyethylene: G - glass

Chemical Preservatives:

Received

Metals - HNO<sub>3</sub> to pH 2

Cyanide - NaOH to pH 12

2,5°C

Time

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of: of:

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4/24/99 915

Office: St. Louis, MO

Address: 5000 Cedar Plaza Parkway

Phone: (314) 842-4550

## Job No. <u>3050.005</u>

#### **CHAIN OF CUSTODY**

Client: INLAND REALT Location: MARYVILLE,			Collected (Signatur		Min El	The 4-26-91
pH SAMPLE DESCRIPTION	Date	Time	Sample Matrix <sup>1</sup>	Sample Type <sup>2</sup>	No. of Containers <sup>3</sup>	ANALYSIS REQUESTED
GMW #5S 12	4/22/99	1515	Water	Grab	1-P, 500 mL	Cyanide (CN) 26482
GMW #5S /	4/22/99	1515	Water	Grab	1-P, 500 mL	Total lead (Pb) and zinc (Zn), Mu, NC
GMW #5S			Water	Grab	1-P, 500 mL	Hexavalent chromium (Cr <sup>VI</sup> )
GMW #5S	4/22/99	1515	Water	Grab	1-P.JC 8	Total Metals-Cd, Cr, mercury (Hg), 4 つんぷ manganese (Mn), Nickel (Ni)
GMW #5D 12	4/22/99	1600	Water	Grab	1-P, 500 mL	cn 26 <b>49</b> 2.
GMW #5D /	4/22/59	1600	Water	Grab	1-P, 500 mL	Total Pb and Zn, Mn, Ni
GMW #5D			Water	Grab	1-P. 500 mL	Cr <sup>vi</sup>
GMW #5D	4/22/99	1600	Water	Grab	1-P. J. SV	Total Metals-Cd, Cr. Hg, Mn. Ni-
					,	
						,
Maximum Method Detection Li	mits: CN, Cd,	Cr. Mn, N	li - 5 ppb; Pb	- 2 ppb; Hg -	0.2 ppb; Zn - 10 pp	b

<sup>1</sup>Matrix = water, wastewater, air, sludge, sediment, etc.

<sup>2</sup>Type = grab, composite

<sup>3</sup>Containers = P - polyethylene; G - glass

Chemical Preservatives:

Metals - HNO<sub>3</sub> to pH 2

Cyanide - NaOH to pH 12

7.5°C

Relinquished by:	Date	Time	Received by: All Land	Date	Time
of:			of: ATA) 4	2649	143-
Relinquished by:	Date	Time	Received by:	Date	Time
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Relinquished by:	Date	Time	Received by:	Date	Time
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Use this space if shipped via courier (e.g., Fed Ex) Relinquished by:	Date	Time	Courier Autorne Cypus	Date	Time
of: Brien Level namiers	1/23/99	1531	*Attach delivery/courier receipt to Chain of Custody	169	[53b]
Relinquished by:	Date	Time	Received Survey 82	Date	Time
of:	5		of: Jeanterra	124/97	915

Office: St. Louis, MO

Address: 5000 Cedar Plaza Parkway

Phone: (314) 842-4550

Job No. 3050.005 Sheet 5 of 6

### **CHAIN OF CUSTODY**

Client: INLAND REAL Location: MARYVILLE			Collected (Signatur	' / //	Mins.	the fit 420
pH SAMPLE DESCRIPTION	Date	Time	Sample Matrix <sup>1</sup>	Sample Type <sup>2</sup>	No. of Containers <sup>3</sup>	ANALYSIS REQUESTED
GMW #6S /2	1/22/9	1105	Water	Grab	1-P, 500 mL	Cyanide (CN) Z648Z
GMW #6S /	4/22/99	1105	Water	Grab	1-P, 500 mL	Total lead (Pb) and zinc (Zn), Ma, NC
GMW #6S			Water	Grab	1-P. 500 mL	Hexavalent chromium (CrVI)
GMW #6S	4/2499	1105	Water	Grab	1-P. 12 SV	manganese (Mn), Nickel (NI)
GMW #6D /Z	42499	1135	Water	Grab	1-P. 500 mL	cn 26482
GMW #6D /	4/22/99	1135	Water	Grab	1-P, 500 mL	Total Pb and Zn, Mn, Ni
GMW #6D			Water	Grab	1-P. 500 mL	Cr <sup>VI</sup>
GMW #6D	1/22/99	1135	Water	Grab	90mL 3	Total Metals-Cd, Cr, Hg, M <del>n. NI</del>
GMW #7 /2	1/27/99	1020	Water	Grab	1-P, 500 mL	cn 26432
GMW #7 /	4/22/99	1020	Water	Grab	1-P, 500 mL	Total Pb and Zn Mn, Ni
GMW #7			Water	Grab	1-P. 500 mL	Cr <sup>VI</sup>
GMW #7 '/	4/22/99	1020	Water	Grab	1-P. IL	/Total Metals-Cd, Cr. Hg, Mn. Ni

Matrix = water, wastewater, air, sludge, sediment, etc.

<sup>2</sup>Type = grab, composite

<sup>3</sup>Containers = P - polyethylene: G - glass

Chemical Preservatives:

Metals - HNO3 to pH 2 Cyanide - NaOH to pH 12 Z.5°(

Relinquished by:	Date	Time	Received by: Alfa Alsor	Date	Time
of:			of: ATAS 4	2649	1437
Relinquished	Date	Time	Received	Date	Time
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Relinquished by:	4/99 25/99	1530	8556802026 *Attach delivery/courier receipt to Chain of	1/23/	1533
Relinquished by:	Date	Time	Received Such Solony:	Date	Time
	42499	1410	of Quanterra	4249	9 915

Office: St. Louis, MO

Address: 5000 Cedar Plaza Parkway

Phone: (314) 842-4550

### Job No. 3050.005 Sheet 6 of

#### CHAIN OF CUSTODY

Client: INLAND REALT Location: MARYVILLE,			Collected (Signatur	. //	Min E	The Af 4-26-97
SAMPLE DESCRIPTION	Date	Time	Sample Matrix <sup>1</sup>	Sample Type <sup>2</sup>	No. of Containers <sup>3</sup>	ANALYSIS REQUESTED
GMW #9 12	4/22/99	09 35	Water	Grab	1-P, 500 mL	Cyanide (CN) 2648Z.
GMW #9 /	4/22/99	0935	Water	Grab	1-P, 500 mL	Total lead (Pb) and zinc (Zn) Ma Wi
GMW #9			Water	Grab	1-P, 500 mL	Hexavalent chromium (Cr <sup>VI</sup> )
GMW #9	4/22/99	0935	Water	Grab	1-P. VC 500mC	Total Metals-Cd, Cr, mercury (Hg), manganese (Mn), Nickel (Ni)
					82	
						F
				e		
Maximum Method Detection Li	mits: CN, Cd,	Cr, Mn, N	Ni - 5 ppb; Pb	- 2 ppb; Hg -	0.2 ppb; Zn - 10 pp	b

<sup>&</sup>lt;sup>1</sup>Matrix = water, wastewater, air, sludge, sediment, etc.

<sup>2</sup>Type = grab, composite

Chemical Preservatives:

Metals - HNO<sub>3</sub> to pH 2 Cyanide - NaOH to pH 12

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<sup>&</sup>lt;sup>3</sup>Containers = P - polyethylene: G - glass

### American Technical & Analytical Services, inc.

875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 • FAX (314) 434-0080

May 5, 1999

MAY - sou

IC.

0

William E. Wright O'Brien & Gere Engineers, Inc. 5000 Cedar Plaza Parkway St. Louis, MO 63128

RE: ATAS #26450.01-#26450.14

#3050.005 - Inland Realty Co, Maryville, MO

Dear Mr. Wright:

Enclosed are the analytical reports for the samples received in our laboratory on April 22, 1999.

If, in your review, you should have any questions or require additional information, please call me at (314) 434-4570.

Thank you for choosing ATAS for your analytical needs.

Sincerely,

Ruseal Brewer Project Manager

**Enclosures** 

RB/jp

REPORT: 2645001MT(711)

5000 CEDAR PLAZA PARKWAY, SUITE 211

ST. LOUIS, MO 63128

DATE : 05-05-99

ATTN: WILLIAM E. WRIGHT

SAMPLE MATRIX : WATER ATAS EPISODE : #26450 DATE SUBMITTED: 04-22-99 DATE ANALYZED : 04-22-99

: #3050.005 - INLAND REALTY CO, MARYVILLE, MO PROJECT

METHOD REF. : SW 7196

RESULTS REPORTED IN mg/L OR PARTS PER MILLION(PPM)

#### HEXAVALENT CHROMIUM

		REPORTING	
CLIENT ID	ATAS ID	LIMIT	RESULTS
GMW #2S	26450.01	0.05	ND
GMW #2D	26450.02	0.05	ND
GMW #3	26450.03	0.05	ND
GMW #3S	26450.04	0.05	ND
GMW #3D	26450.05	0.05	ND
GMW #4S	26450.06	0.05	ND
GMW #4D	26450.07	0.05	ND
GMW #10	26450.08	0.05	ND
GMW #5S	26450.09	0.05	ND
GMW #5D	26450.10	0.05	ND
GMW #6S	26450.11	0.05	ND
GMW #6D	26450.12	0.05	ND
GMW #9	26450.14	0.05	ND

**ATAS** 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: O'BRIEN & GERE ENGINEERS, INC. 5000 CEDAR PLAZA PARKWAY, SUITE 211

REPORT: 2645001MT(711)

ST. LOUIS, MO 63128

DATE : 05-05-99

ATTN: WILLIAM E. WRIGHT

SAMPLE MATRIX : WATER ATAS EPISODE : #26450

DATE SUBMITTED: 04-22-99 DATE ANALYZED : 04-27-99

PROJECT : #3050.005 - INLAND REALTY CO, MARYVILLE, MO

METHOD REF. : SW 7196

RESULTS REPORTED IN mg/L OR PARTS PER MILLION (PPM)

#### HEXAVALENT CHROMIUM

REPORTING ATAS ID RESULTS LIMIT CLIENT ID 0.05 ND GMW #7 26450.13

**1115** 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: O'BRIEN & GERE ENGINEERS, INC.

REPORT:

2645001MT(711)

ST. LOUIS, MO 63128

5000 CEDAR PLAZA PARKWAY, SUITE 211

DATE : 05-05-99

ATTN: WILLIAM E. WRIGHT

### QA/QC

DESCRIPTION		PARAMETER	RESULTS	
METHOD BLANK METHOD BLANK	04-22-99 04-27-99	HEXAVALENT CHROMIUM HEXAVALENT CHROMIUM	<0.05 <0.05	mg/L mg/L
CONTROL SPIKE	04-22-99 04-27-99	HEXAVALENT CHROMIUM HEXAVALENT CHROMIUM	101 % 100 %	RECOVERY RECOVERY

Office: St. Louis, MO

Address: 5000 Cedar Plaza Parkway

Phone: (314) 842-4550

### Job No. <u>3050.005</u> Sheet <u>1</u> of <u>4</u>

### **CHAIN OF CUSTODY**

Client: INLAND REALTY CO Location: MARYVILLE, MISSOURI				Collected By: (Signature)  (Signature)  (Signature)				
SAMPLE DESCRIPTION	Date	Time	Sample Matrix <sup>1</sup>	Sample Type <sup>2</sup>	No. of Containers <sup>3</sup>	ANALYSIS REQUESTED		
GMW #2S LM			Water	Grab	1-P, 500 mL	Cyanide (CN)		
GMW #2S 4-22-99			Water	Grab	1-P. 500 mL	Total lead (Pb) and zinc (Zn)		
GMW #28 2(450.0)	4/21/99	1430	Water	Grab	1-P, 500 mL	Hexavalent chromium (Cr <sup>VI</sup> )		
GMW #2S			Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, mercury (Hg), manganese (Mn), Nickel (Ni)		
GMW #2D			Water	Grab	1-P, 500 mL	CN		
GMW #2D	_		Water	Grab	1-P, 500 mL	Total Pb and Zn		
GMW #2D 2(450.02	4/21/99	1440	Water	Grab	1-P, 500 mL	Cr <sup>vi</sup>		
GMW #2D		<del></del> ,	Water	Grab	1-P, 1 L	Total Metals-Cd, Cr. Hg, Mn, Ni		
GMW #3	_		Water	Grab	1-P, 500 mL	CN		
GMW #3			Water	Grab	1-P. 500 mL	Total Pb and Zn		
GMW #3 26450.03	4/21/99	1340	Water	Grab	1-P, 500 mL	Cr <sup>vi</sup>		
GMW #3			Water	Grab	1-P, 1 L	Total Metals-Cd, Cr. Hg. Mn. Ni		
Maximum Method Detection Lin	mits: CN, Cd,	Cr. Mn, N	i - 5 ppb; Pb	- 2 ppb; Hg - 0	0.2 ppb; Zn - 10 ppl	b		

<sup>&</sup>lt;sup>1</sup>Matrix = water, wastewater, air, sludge, sediment, etc.

<sup>2</sup>Type = grab, composite

Chemical Preservatives:

Relinquished by:	Date	Time	Received by:-	Date	Time
of:			of:		
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		
Use this space if shipped via courier (e.g., Fed Ex) Relinquished by:	Date	Time	Courier Name: Autorne Express	Date	Time
by: Afelian E. Ufrift  of: Obrien & Cere	42/59	1630	#Attach delivery/courier receipt to Chain of Custody	4/2/99	1630
Relinquished by:	Date	Time	Received Manually 4.6°C	Date	Time
of:			of: ATAS	4/22/59	1030

<sup>&</sup>lt;sup>3</sup>Containers = P - polyethylene; G - glass

Office: St. Louis, MO

Address: 5000 Cedar Plaza Parkway

Phone: (314) 842-4550

Job No. 3050.005 Sheet 2 of 4

#### **CHAIN OF CUSTODY**

Client: INLAND REALT Location: MARYVILLE,	Collected By: (Signature)					
SAMPLE DESCRIPTION	Date	Time	Sample Matrix <sup>1</sup>	Sample Type <sup>2</sup>	No. of Containers <sup>3</sup>	ANALYSIS REQUESTED
GMW #3S			Water	Grab	1-P, 500 mL	Cyanide (CN)
GMW #3S	, —		Water	Grab	1-P. 500 mL	Total lead (Pb) and zinc (Zn)
GMW #38 26450.04	121/99	1410	Water	Grab	1-P, 500 mL	Hexavalent chromium (Cr <sup>VI</sup> )
GMW #3S			Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, mercury (Hg), manganese (Mn), Nickel (Ni)
GMW #3D			Water	Grab	1-P, 500 mL	CN
GMW #3D			Water	Grab	1-P, 500 mL	Total Pb and Zn
GMW #3D 26450.05	42/99	1420	Water	Grab	1-P, 500 mL	Cr <sup>vI</sup>
GMW #3D		-	Water	Grab	1-P, 1 L	Total Metals-Cd. Cr, Hg, Mn, Ni
GMW #4S		-	Water	Grab	1-P, 500 mL	CN
GMW #4S			Water	Grab	1-P, 500 mL	Total Pb and Zn
GMW #4S 26450.06	4/21/99	1350	Water	Grab	1-P, 500 mL	Cr <sup>vI</sup>
GMW #4S			Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, Hg, Mn, Ni
Maximum Method Detection Li	mits: CN, Cd,	Cr, Mn, N	li - 5 ppb; Pb	- 2 ppb; Hg -	0.2 ppb; Zn - 10 pp	b

Matrix = water, wastewater, air, sludge, sediment, etc.

 $^{2}$ Type = grab, composite

Chemical Preservatives:

Relinquished by:	Date	Time	Received by:-	Date	Time
of:			of:		
Relinquished by:	Date	Time	Received by:	Date	Time
of:	12		of:		
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		
Use this space if shipped via courier (e.g., Fed Ex) Relinquished	Date	Time	Courier Auforne Expess	Date	Time
of: Prien & Cere	4/2/99	1630	*Attach delivery/courier receipt to Chain of Custody	46/99	163)
Relinquished by:	Date	Time	Received Manufacture 4.60	Date	Time
of:			of: ATAS	4/22/49	1030

 $<sup>^{3}</sup>$ Containers = P - polyethylene; G - glass

Office: St. Louis, MO

Address: 5000 Cedar Plaza Parkway

Phone: (314) 842-4550

### Job No. <u>3050.005</u> Sheet <u>3</u> of **6**

### **CHAIN OF CUSTODY**

	Client: INLAND REALTY CO Location: MARYVILLE, MISSOURI				Collected By: (Signature)				
SAMPLE DESCRIPTION	Date	Time	Sample Matrix <sup>1</sup>	Sample Type <sup>2</sup>	No. of Containers <sup>3</sup>	ANALYSIS REQUESTED			
GMW #4D			Water	Grab	1-P, 500 mL	Cyanide (CN)			
GMW #4D			Water	Grab	1-P, 500 mL	Total lead (Pb) and zinc (Zn)			
GMW #4D 26450, 07	4/04/99	14:00	Water	Grab	1-P, 500 mL	Hexavalent chromium (Cr <sup>VI</sup> )			
GMW #4D			Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, mercury (Hg), manganese (Mn), Nickel (Ni)			
GMW #3DA			Water	Grab	1-P, 500 mL	CN			
GMW #3DA			Water	Grab	1-P, 500 mL	Total Pb and Zn			
GMW #3DA	#5		Water	Grab	1-P. 500 mL	Cr <sup>vI</sup>			
GMW #3DA			Water	Grab	1-P, 1 L	Total Metals-Cd, Cr. Hg, Mn. Ni			
GMW #10			Water	Grab	1-P, 500 mL	CN			
GMW #10		-6-10	Water	Grab	1-P, 500 mL	Total Pb and Zn			
GMW #10 26450, OR	1/21/99	1400	Water	Grab	1-P, 500 mL	Cr <sup>VI</sup>			
GMW #10			Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, Hg, Mn, Ni			
Maximum Method Detection Lin	mits: CN, Cd,	Cr, Mn, N	i - 5 ppb; Pb	- 2 ppb; Hg - (	).2 ppb; Zn - 10 ppl	of year bar bank marghet			

<sup>&</sup>lt;sup>1</sup>Matrix = water, wastewater, air, sludge, sediment, etc.

<sup>2</sup>Type = grab, composite

Chemical Preservatives:

	Relinquished by:	Date	Time	Received by:-	Date	Time
	of:			of:		
	Relinquished by:	Date	Time	Received by:	Date	Time
8	of:			of:		
See Arrest	Relinquished by:	Date	Time	Received by:	Date	Time
	of:			of:		
Andrew commenced in the second	Use this space if shipped via courier (e.g., Fed Ex) Relinquished by:	Date	Time	Courier Autoine Espess	Date	Time
i i	of: O'Brien & Vere	4/21/99	168)	*Attach delivery/courier receipt to Chain of Custody	46/99	1630
	Relinquished by:	Date	Time	Received Masserby 4.6°C	Date	Time
	of:			of: ATAS	4/22/05	1031

 $<sup>{}^{3}</sup>$ Containers = P - polyethylene; G - glass

Office: St. Louis, MO

Address: 5000 Cedar Plaza Parkway

Phone: (314) 842-4550

Job No. 3050.005 Sheet 4 of 2

**CHAIN OF CUSTODY** 

Client: INLAND REALTY Location: MARYVILLE,	Collected By: (Signature) William E. When					
SAMPLE DESCRIPTION	Date	Time	Sample Matrix <sup>1</sup>	Sample Type <sup>2</sup>	No. of Containers <sup>3</sup>	ANALYSIS REQUESTED
GMW #5S	-		Water	Grab	1-P, 500 mL	Cyanide (CN)
GMW #5S			Water	Grab	1-P, 500 mL	Total lead (Pb) and zinc (Zn)
GMW #58 26450. 09.	1/21/99	1450	Water	Grab	1-P, 500 mL	Hexavalent chromium (Cr <sup>VI</sup> )
GMW #5S			Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, mercury (Hg), manganese (Mn), Nickel (Ni)
GMW #5D		_	Water	Grab	1-P, 500 mL	CN
GMW #5D		-	Water	Grab	1-P, 500 mL	Total Pb and Zn
GMW #5D 26450.10	1/21/99	1580	Water	Grab	1-P, 500 mL	Cr <sup>VI</sup>
GMW #5D	,		Water	Grab	1-P, 1 L	Total Metals-Cd, Cr. Hg, Mn. Ni
						,

Matrix = water, wastewater, air, sludge, sediment, etc.

<sup>2</sup>Type = grab, composite

<sup>3</sup>Containers = P - polyethylene: G - glass

Chemical Preservatives:

Metals - HNO<sub>3</sub> to pH 2 Cyanide - NaOH to pH 12

Date Time Date Time Received by:-Relinquished by:\_\_\_\_\_ of: Date Time Received Date Time Relinquished by:\_\_ by:\_\_ of: of: Received Date Time Date Time Relinquished by:\_\_\_ by:\_\_ Date Time Anforne Express Use this space if shipped via courier (e.g., Fed Date Time Reling 1630 \*Attach delivery/courier receipt to Chain of Custody Time Date Date Time Relinquished 4.6%

Office: St. Louis, MO

Address: 5000 Cedar Plaza Parkway

Phone: (314) 842-4550

## Job No. <u>3050.005</u> Sheet <u>5</u> of <u>6</u>

#### CHAIN OF CUSTODY

	Client: INLAND REALTY CO Location: MARYVILLE, MISSOURI				Collected By: (Signature) Lillian E. While				
SAMPLE DESCRIPTION	Date	Time	Sample Matrix <sup>1</sup>	Sample Type <sup>2</sup>	No. of Containers <sup>3</sup>	ANALYSIS REQUESTED			
GMW #6S			Water	Grab	1-P, 500 mL	Cyanide (CN)			
GMW #6S		_	Water	Grab	1-P, 500 mL	Total lead (Pb) and zinc (Zn)			
GMW #68 26450.11	4/21/99	1300	Water	Grab	1-P, 500 mL	Hexavalent chromium (Cr <sup>vI</sup> )			
GMW #6S	_		Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, mercury (Hg), manganese (Mn), Nickel (Ni)			
GMW #6D			Water	Grab	1-P, 500 mL	CN			
GMW #6D		}	Water	Grab	1-P, 500 mL	Total Pb and Zn			
GMW #6D 26450.12	H21/99	1310	Water	Grab	1-P, 500 mL	Cr <sup>vi</sup>			
GMW #6D			Water	Grab	1-P, 1 L	Total Metals-Cd, Cr. Hg, Mn, Ni			
GMW #7			Water	Grab	1-P. 500 mL	CN			
GMW #7			Water	Grab	1-P, 500 mL	Total Pb and Zn			
GMW #7 26450. B	421/99	1320	Water	Grab	1-P, 500 mL	Cr <sup>vi</sup>			
GMW #7			Water	Grab	1-P. 1 L	Total Metals-Cd, Cr. Hg, Mn, Ni			
Maximum Method Detection Li	mits: CN, Cd,	Cr, Mn, N	i - 5 ppb; Pb	- 2 ppb; Hg - (	0.2 ppb; Zn - 10 ppl	b			

<sup>&</sup>lt;sup>1</sup>Matrix = water, wastewater, air, sludge, sediment, etc.

<sup>2</sup>Type = grab, composite

Relinquished

by:

Chemical Preservatives:

Metals - HNO<sub>3</sub> to pH 2 Cyanide - NaOH to pH 12

Relinquished Date Time Received by:-Date Time by:\_\_\_ of:

Received

by:\_\_\_\_

of: Date Received Date Relinquished Time Time by:\_ by:\_

Time

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Date

160 \*Attach delivery/courier receipt to Chain of

Custody Date Time Received Relinquished 4.60

Time

Date

Date

Time

Time

1650

<sup>&</sup>lt;sup>3</sup>Containers = P - polyethylene: G - glass

Office: St. Louis, MO

Address: 5000 Cedar Plaza Parkway

Phone: (314) 842-4550

### Job No. <u>3050.005</u> Sheet <u>6</u> of <u>6</u>

### **CHAIN OF CUSTODY**

Client: INLAND REALTY CO Location: MARYVILLE, MISSOURI				Collected By: (Signature) Lillian E. Might				
SAMPLE	DESCRIPTION	Date	Time	Sample Matrix <sup>1</sup>	Sample Type <sup>2</sup>	No. of Containers <sup>3</sup>	ANALYSIS REQUESTED	
GMW #9		# _		Water	Grab	1-P, 500 mL	Cyanide (CN)	
GMW #9				Water	Grab	1-P, 500 mL	Total lead (Pb) and zinc (Zn)	
GMW #9	26450.14	1/2/99	1330	Water	Grab	1-P. 500 mL	Hexavalent chromium (Cr <sup>VI</sup> )	
GMW #9	,			Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, mercury (Hg), manganese (Mn), Nickel (Ni)	
							,	
		CN CI	C- M- N	Ii 5 mmh. Dh	2 nah. Ha	0.2 nnh: 7n - 10 nn	h	
Maximum	Method Detection Li	imits: CN, Ca,	, Cr. Mn. N	11 - 3 ppo; Po	- 2 ppo; ng -	0.2 ррв, 211 - 10 рр	U	

<sup>&</sup>lt;sup>1</sup>Matrix = water, wastewater, air, sludge, sediment, etc.

<sup>2</sup>Type = grab, composite

Chemical Preservatives:

Relinquished by:	Date	Time	Received by:-	Date	Time
of:			of:		
Relinquished by:	Date	Time	Received by:	Date	Time
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of: plant of the second	1/21/99	(63)	*Attach delivery/courier receipt to Chain of Custody	Hay A	(63)
U Shew / rese			Custouy	-	
Relinquished by:	Date	Time	Received Manually 4.6°c	Date	Time

<sup>&</sup>lt;sup>3</sup>Containers = P - polyethylene; G - glass

# O'Brien & Gere Laboratories, Inc.

# **Analytical Results Wet Chemistry**

Client: O'Brien & Gere Engineers, Inc.

Project: Inland Realty Co.

Proj. Desc: Maryville, Missouri

Job No.: 3435.016.015

Certification NY No.: 10155R

Sample: M0293

Samp. Description: GMW #3 DA

Collected: 04/21/99 14:20

Matrix: Water

Received: 04/22/99 09:45

Parameter	Result Units	Method	Prepared Analyzed	QC Batch Note
G)	05/1	71067	04/00/00	0422001126 20

Notes:

29: Elevated detection limit due to matrix interference.

Authorized: None for Santuce

Date: May 10,1999 Monika Santucci

J-Estimated value



Office: <u>> 7. Louis</u>
Address: <u>5000 Ceobar Plaza</u> Parkway
Phone: <u>314-842-4550</u>

Job No. <u>3 050 .005</u> Sheet <u>1</u> of

CHAIN OF CUSTODY

3435.016

CLIENT: In and Realty LOCATION: Maryville, MO			COLLECTI (Signature)	ED BY: Jefiller	m E	hpift-
SAMPLE DESCRIPTION	Date	Time	Sample Matrix <sup>1</sup>	Sample Type <sup>2</sup>	No. of Containers	ANALYSIS REQUESTED
CMW #3DA	1/21/90	1420	water	grab	1	Hexandent Chrome

1 Matrix = water, wastewater, air, sludge, sediment, etc.

<sup>2</sup> Type = grab, composite

Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		
Relinquished by:	Date	Time	Received by:	Date	Time
ot:			ot:		
Relinquished by:	Date	Time	Received by:	Date	Time
ot:			ot:		
Use this space if shipped via courier (e.g., Bety Ex)	Date	Time	Courier Name Anlane	Date	Time
Use this space if shipped via courier (e.g., Bed, Ex) f Refinquished by: Afther Land of Obsien Rolling Land	5/99	1630	CC51 C-11/22	1/21/99	1630
Relinquished by:	Date	Time	Received by home bills	Date	Time
oc.			or Mrent Ger Fatorstores	4/24/9	0945

# O'Brien & Gere Laboratories, Inc.

Client: O'Brien & Gere Engineers, Inc.

Project: Inland Realty Co.

Proj. Desc: Maryville, Missouri

Sample: M0669

Samp. Description: GMW #3DA

Units: mg/L

# **Analytical Results Trace Metals**

Job No.: 3435.016.015

Certification NY No.: 10155R

Collected: 04/23/99

Matrix: Water

Received: 04/24/99

% Solids:

Number of analytes: 7

Parameter Result M	ethod Prepar	ed Analyzed	QC Batch	Dilut. Note
	00.7 04/29/	99 05/03/99	042999W1	1
	00.7 04/29/	99 05/03/99	042999W1	1
	00.9 04/29/	99 05/10/99	042999W1	1
Lead	00.7 04/29/	99 05/03/99	042999W1	1
ar sureman and are sureman and	45.1 05/04/	99 05/04/99	050499W1	1
mer cur y	200.7 04/29/	99 05/03/99	042999W1	1
NICKEL	200.7 04/29/	99 05/03/99	042999W1	1

Notes:

J-Estimated value

Authorized: North Carline Date: May 12,1999 Monika Santucci

# O'Brien & Gere Laboratories, Inc.

# **Analytical Results Wet Chemistry**

Client: O'Brien & Gere Engineers, Inc.

Project: Inland Realty Co.

Proj. Desc: Maryville, Missouri

Job No.: 3435.016.015

Certification NY No.: 10155R

Sample: M0669

Samp. Description: GMW #3DA

Collected: 04/23/99

Matrix: Water

Received: 04/24/99 08:49

Parameter	Result Qual	Units	Method	Prepared Analyzed	QC Batch Note
Total cyanide	<.005 U	mg/L	EPA 335.2	04/30/99 05/03/99	043099W22

Notes:

U-Undetected at the reported level. J-the reported value is estimated.

Authorized:\_

Monika Santucci



Job No. <u>3050.009</u>

Office: 54 Louis

Address: <u>5000 (edar Plaza Parkwai)</u> Phone: <u>314-842-4550</u>

CHAIN OF CUSTODY

3435.016.015

CLIENT: Inland Realty LOCATION: Maryville, MO			COLLECTED BY: (Signature) Mulliam Ephyl				
SAMPLE DESCRIPTION	Date	Time	Sample Matrix <sup>1</sup>	Sample Type <sup>2</sup>	No. of Containers	ANALYSIS REQUESTED	
GMW#3DA	123/99	1025	water	grah	1	Mr. Ni Pb. Zn	
CMW#3DA	23/4	1025	water	erab	/	Cd. Cr. Ha	
CMW#3DA	33/99	105	water	grab	1	Cyanide	
				0		,	
						,	
			***				

<sup>2</sup> Type = grab, composite

Relinquished by:	Date	Time	Received by:	Date	Time
oć			of:		
Relinquished by:	Date	Time	Received by:	Date	Time
of:			ot		
Relinquished by:	Date	Time	Received by:	Date	Time
of:			o <del>c</del>		
Use this space if shipped the specier (c.s., Fod Ex)	Date	Time	Courier Name Arthorn Cyllell	Date	Time
Refinquished by Miller Marght	1/33/99	1531	\$556801933 *Artach delivery/courier receipt to Chain of Custody	为	1530
Relinquished by:	Date	Time	Received by: Mala F. Jachson	Date	Time
o <del>c</del> t			of Marin + vere LARS	4/2/99	07:00

djo/apc cooluting 40c

<sup>&</sup>lt;sup>1</sup> Matrix = water, wastewater, air, sludge, sediment, etc.

#### AMERICAN TECHNICAL & ANALYTICAL SERVICES, INC.

875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 • FAX (314) 434-0080

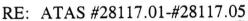
FEB - 3 2000

O'RRIEN & GERE

-NGINEERS, INC.

February 1, 2000

William E. Wright O'Brien & Gere Engineers, Inc. 5000 Cedar Plaza Parkway St. Louis, MO 63128



#3050.005 - Inland Realty Co, Maryville, Missouri

Dear Mr. Wright:

Enclosed is the revised report for the above captioned project received in our laboratory on October 28, 1999. I apologize for any inconvenience this may have caused.

If, in your review, you should have any questions or require additional information, please call.

Thank you for choosing ATAS for your analytical needs.

Sincerely,

Jeffrey A. Carr Project Manager

**Enclosures** 

JAC/jp

#### **A7745** 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: O'BRIEN & GERE ENGINEERS, INC. 5000 CEDAR PLAZA PARKWAY, SUITE 211

REPORT: 2811701MT(717)

ST. LOUIS, MO 63128

DATE: 11-11-99

ATTN: WILLIAM E. WRIGHT REVISED DATE: 02-01-00

SAMPLE MATRIX : WATER ATAS # : 28117.01

DATE SUBMITTED: 10-28-99

PROJECT : #3050.005 - INLAND REALTY CO, MARYVILLE, MISSOURI SAMPLE ID : GMW #5S

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
		INC	RGANICS		
TOTAL CYANIDE	0.005	mg/L	0.005	11-02-99	SW 9010
		м	ETALS		
HEXAVALENT CHROMIU CADMIUM CHROMIUM LEAD MANGANESE NICKEL ZINC MERCURY	M 0.005 0.005 0.005 0.002 0.005 0.005 0.010 0.0002	mg/L mg/L mg/L mg/L mg/L mg/L mg/L	ND ND ND 1.04 0.023 0.021 ND	10-28-99 11-05-99 11-05-99 11-05-99 11-05-99 11-05-99	SW 7196 SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 7470

ND = NOT DETECTED ABOVE REPORTING LIMIT



REPORT: 2811701MT(717

5000 CEDAR PLAZA PARKWAY, SUITE 211

DATE: 11-11-99 ST. LOUIS, MO 63128

REVISED DATE: 02-01-00 ATTN: WILLIAM E. WRIGHT

SAMPLE MATRIX : WATER ATAS # : 28117.02

DATE SUBMITTED: 10-28-99

: #3050.005 - INLAND REALTY CO, MARYVILLE, MISSOURI PROJECT

SAMPLE ID : GMW #5D

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
		INC	RGANICS		ž
TOTAL CYANIDE	0.005	mg/L	0.005	11-02-99	SW 9010
		M	<b>TETALS</b>		
HEXAVALENT CHROMIUM CADMIUM CHROMIUM LEAD MANGANESE NICKEL ZINC MERCURY	0.005 0.005 0.005 0.002 0.020 0.020 0.005 0.010	mg/L mg/L mg/L mg/L mg/L mg/L mg/L	ND ND ND ND 0.798 ND 0.013 ND	10-28-99 11-05-99 11-05-99 11-01-99 11-01-99 11-01-99 11-10-99	SW 7196 SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 7470



REPORT: 2811701MT(717)

5000 CEDAR PLAZA PARKWAY, SUITE 211

ST. LOUIS, MO 63128

DATE: 11-11-99

REVISED DATE: 02-01-00 ATTN: WILLIAM E. WRIGHT

SAMPLE MATRIX : WATER

ATAS # : 28117.03

DATE SUBMITTED: 10-28-99

PROJECT : #3050.005 - INLAND REALTY CO, MARYVILLE, MISSOURI

SAMPLE ID : GMW #4D

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
		INC	RGANICS		
TOTAL CYANIDE	0.005	mg/L	ND	11-02-99	SW 9010
		M	ETALS		
HEXAVALENT CHROMIUM CADMIUM CHROMIUM LEAD MANGANESE NICKEL ZINC MERCURY	4 0.005 0.005 0.005 0.002 0.005 0.005 0.010 0.0002	mg/L mg/L mg/L mg/L mg/L mg/L	ND ND ND 1.02 0.022 0.021 ND	10-28-99 11-05-99 11-05-99 11-01-99 11-01-99 11-01-99 11-01-99	SW 7196 SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 7470



REPORT: 2811701MT(717

5000 CEDAR PLAZA PARKWAY, SUITE 211 ST. LOUIS, MO 63128

DATE: 11-11-99

ATTN: WILLIAM E. WRIGHT

REVISED DATE: 02-01-00

SAMPLE MATRIX : WATER

ATAS #

: 28117.04

DATE SUBMITTED: 10-28-99

PROJECT

: #3050.005 - INLAND REALTY CO, MARYVILLE, MISSOURI

SAMPLE ID

: GMW #4S

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
		INC	RGANICS		
TOTAL CYANIDE	0.005	mg/L	0.011	11-02-99	SW 9010
		N	METALS		
HEXAVALENT CHROMIUM CADMIUM CHROMIUM LEAD MANGANESE NICKEL ZINC MERCURY	M 0.005 0.005 0.005 0.002 0.005 0.005 0.010 0.0002	mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.209 0.009 0.009 ND 1.15 ND 0.012	10-28-99 11-05-99 11-05-99 11-01-99 11-01-99 11-01-99 11-10-99	SW 7196 SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 7470

#### **A77** 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: O'BRIEN & GERE ENGINEERS, INC. 5000 CEDAR PLAZA PARKWAY, SUITE 211

REPORT: 2811701MT(717)

ST. LOUIS, MO 63128 DATE: 11-11-99

ATTN: WILLIAM E. WRIGHT REVISED DATE: 02-01-00

SAMPLE MATRIX : WATER

ATAS # : 28117.05

DATE SUBMITTED: 10-28-99

PROJECT : #3050.005 - INLAND REALTY CO, MARYVILLE, MISSOURI SAMPLE ID : GMW #9

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
		INC	RGANICS	2	
TOTAL CYANIDE	0.005	mg/L	ND	11-02-99	SW 9010
		M	ETALS		
HEXAVALENT CHROMIUN CADMIUM CHROMIUM	0.005 0.005	mg/L mg/L mg/L	0.021 J ND 0.007	10-28-99 11-05-99 11-05-99 11-01-99	SW 7196 SW 6010 SW 6010 SW 6010
LEAD MANGANESE NICKEL ZINC MERCURY	0.002 0.005 0.005 0.010 0.0002	mg/L mg/L mg/L mg/L	ND 1.53 ND 0.010 ND	11-01-99 11-01-99 11-01-99 11-10-99	SW 6010 SW 6010 SW 6010 SW 7470

J = ESTIMATED VALUE; BELOW REPORTING LIMIT

mg/L = PARTS PER MILLION(PPM)

ND = NOT DETECTED ABOVE REPORTING LIMIT

REPORT: 2811701MT(717

5000 CEDAR PLAZA PARKWAY, SUITE 211

DATE: 11-11-99

ST. LOUIS, MO 63128 ATTN: WILLIAM E. WRIGHT

REVISED DATE: 02-01-00

#### QA/QC

DESCRIPTION		PARAMETER	RESULTS
METHOD BLANK	11-02-99 10-28-99 11-05-99 11-05-99 11-01-99 11-01-99 11-01-99	TOTAL CYANIDE HEXAVALENT CHROMIUM CADMIUM CHROMIUM LEAD MANGANESE NICKEL ZINC MERCURY	<0.005 mg/L <0.005 mg/L <0.005 mg/L <0.005 mg/L <0.002 mg/L <0.005 mg/L <0.005 mg/L <0.005 mg/L <0.005 mg/L <0.005 mg/L
CONTROL SPIKE	11-02-99 10-28-99 11-05-99 11-01-99 11-01-99 11-01-99 11-01-99	TOTAL CYANIDE HEXAVALENT CHROMIUM CADMIUM CHROMIUM LEAD MANGANESE NICKEL ZINC MERCURY	90 % RECOVERY 101 % RECOVERY 109 % RECOVERY 105 % RECOVERY 102 % RECOVERY 104 % RECOVERY 106 % RECOVERY 104 % RECOVERY 100 % RECOVERY

#### American Technical & Analytical Services, inc.

875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 • FAX (314) 434-0080

February 1, 2000

William E. Wright O'Brien & Gere Engineers, Inc. 5000 Cedar Plaza Parkway St. Louis, MO 63128

RE: ATAS #28130.01-#28130.06

#3050.005 - Inland Realty Co, Maryville, Missouri

Dear Mr. Wright:

Enclosed is the revised report for the above captioned project received in our laboratory on October 29, 1999. I apologize for any inconvenience this may have caused.

O BRIEN & GERE ENGINEERS INC

If, in your review, you should have any questions or require additional information, please call.

Thank you for choosing ATAS for your analytical needs.

Sincerely,

Jeffrey A. Carr Project Manager

**Enclosures** 

JAC/jp



REPORT: 2813001MT(717

5000 CEDAR PLAZA PARKWAY, SUITE 211

DATE: 11-12-99 ST. LOUIS, MO 63128

REVISED DATE: 02-01-00 ATTN: WILLIAM E. WRIGHT

SAMPLE MATRIX : WATER

28130.01 ATAS # : DATE SUBMITTED: 10-29-99

: #3050.005 - INLAND REALTY CO, MARYVILLE, MISSOURI PROJECT

: GMW #2S SAMPLE ID

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
TOTAL CYANIDE	0.005	I <b>NO</b> mg/L	<b>RGANICS</b> ND	11-02-99	SW 9010
HEXAVALENT CHROMIU CADMIUM CHROMIUM LEAD MANGANESE NICKEL	M 0.005 0.005 0.005 0.002 0.005 0.005	mg/L mg/L mg/L mg/L mg/L mg/L	ND ND 0.005 ND 2.39 ND 0.050	10-29-99 11-09-99 11-02-99 11-02-99 11-02-99 11-02-99	SW 7196 SW 6010 SW 6010 SW 6010 SW 6010 SW 6010



CLIENT: O'BRIEN & GERE ENGINEERS, INC. 5000 CEDAR PLAZA PARKWAY, SUITE 211

REPORT: 2813001MT(717)

ST. LOUIS, MO 63128 DATE: 11-12-99
ATTN: WILLIAM E. WRIGHT REVISED DATE: 02-01-00

SAMPLE MATRIX : WATER

ATAS # : 28130.02

DATE SUBMITTED: 10-29-99

PROJECT : #3050.005 - INLAND REALTY CO, MARYVILLE, MISSOURI SAMPLE ID : GMW #2D

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
		INO	RGANICS		
TOTAL CYANIDE	0.005	mg/L	ND	11-02-99	SW 9010
		м	ETALS		
HEXAVALENT CHROMIUM CADMIUM CHROMIUM LEAD	0.005 0.005 0.002	mg/L mg/L mg/L mg/L	ND ND 0.005 ND	10-29-99 11-09-99 11-09-99 11-02-99	SW 7196 SW 6010 SW 6010 SW 6010
MANGANESE NICKEL ZINC MERCURY	0.005 0.005 0.010 0.0002	mg/L mg/L mg/L mg/L	0.587 ND 0.031 ND	11-02-99 11-02-99 11-02-99 11-11-99	SW 6010 SW 6010 SW 6010 SW 7470

**A TAS** 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: O'BRIEN & GERE ENGINEERS, INC.

REPORT: 2813001MT(71

5000 CEDAR PLAZA PARKWAY, SUITE 211

DATE: 11-12-99 ST. LOUIS, MO 63128 REVISED DATE: 02-01-00 ATTN: WILLIAM E. WRIGHT

SAMPLE MATRIX : WATER ATAS # : 28130.03

DATE SUBMITTED: 10-29-99

PROJECT : #3050.005 - INLAND REALTY CO, MARYVILLE, MISSOURI

: GMW #3 SAMPLE ID

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
	0.005		RGANICS	11-02-99	SW 9010
TOTAL CYANIDE	0.005	mg/L	ND IETALS	11-02-99	5W 3010
HEXAVALENT CHROMIUM CADMIUM CHROMIUM LEAD MANGANESE NICKEL ZINC MERCURY	M 0.005 0.005 0.005 0.002 0.005 0.005 0.010 0.0002	mg/L mg/L mg/L mg/L mg/L mg/L mg/L	ND 0.006 ND ND 1.12 ND 0.013 ND	10-29-99 11-09-99 11-02-99 11-02-99 11-02-99 11-02-99 11-11-99	SW 7196 SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 7470



REPORT: 2813001MT(717)

5000 CEDAR PLAZA PARKWAY, SUITE 211

ST. LOUIS, MO 63128

DATE: 11-12-99

ATTN: WILLIAM E. WRIGHT

REVISED DATE: 02-01-00

SAMPLE MATRIX : WATER ATAS # : 28130.04

DATE SUBMITTED: 10-29-99 PROJECT : #3050.005 - INLAND REALTY CO, MARYVILLE, MISSOURI

: GMW #3S SAMPLE ID

DATE METHOD REPORTING REFERENCE RESULTS ANALYZED UNITS PARAMETER LIMIT INORGANICS SW 9010 11-02-99 0.005 mq/L 0.028 TOTAL CYANIDE METALS SW 7196 10-29-99 HEXAVALENT CHROMIUM 0.005 mg/L ND SW 6010 11-09-99 ND 0.005 mg/L CADMIUM SW 6010 11-09-99 CHROMIUM ND0.005 mg/L SW 6010 11-02-99 0.002 mg/L ND LEAD mg/L 0.673 11-02-99 SW 6010 0.005 MANGANESE 11-02-99 SW 6010 mg/L ND 0.005 NICKEL SW 6010 11-02-99 0.015 0.010 mg/L ZINC SW 7470 11-11-99 0.0002 ND mg/L MERCURY



CLIENT: O'BRIEN & GERE ENGINEERS, INC. 5000 CEDAR PLAZA PARKWAY, SUITE 211

REPORT: 2813001MT(71

DATE: 11-12-99 ST. LOUIS, MO 63128

REVISED DATE: 02-01-00 ATTN: WILLIAM E. WRIGHT

SAMPLE MATRIX : WATER

ATAS # : 28130.05

DATE SUBMITTED: 10-29-99

PROJECT : #3050.005 - INLAND REALTY CO, MARYVILLE, MISSOURI

: GMW #3D SAMPLE ID

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
TOTAL CYANIDE	0.005	I <b>NC</b> mg/L	ORGANICS	11-02-99	SW 9010
		M	IETALS		
HEXAVALENT CHROMIUM CADMIUM CHROMIUM LEAD MANGANESE NICKEL ZINC MERCURY	0.005 0.005 0.005 0.002 0.005 0.005 0.010 0.0002	mg/L mg/L mg/L mg/L mg/L mg/L mg/L	ND ND ND ND 0.620 ND ND ND	10-29-99 11-09-99 11-02-99 11-02-99 11-02-99 11-02-99 11-11-99	SW 7196 SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 7470

### **1715** 875 Fee Fee Road • Maryland Heights, MO 63043 • (314) 434-4570 - FAX (314) 434-0080

CLIENT: O'BRIEN & GERE ENGINEERS, INC.

REPORT: 2813001MT(717)

O'BRIEN & GERE ENGINEERS, INC. 5000 CEDAR PLAZA PARKWAY, SUITE 211

DATE: 11-12-99

ST. LOUIS, MO 63128 ATTN: WILLIAM E. WRIGHT

REVISED DATE: 02-01-00

SAMPLE MATRIX : WATER

ATAS # : 28130.06

DATE SUBMITTED: 10-29-99

PROJECT : #3050.005 - INLAND REALTY CO, MARYVILLE, MISSOURI SAMPLE ID : GMW #10

PARAMETER	REPORTING LIMIT	UNITS	RESULTS	DATE ANALYZED	METHOD REFERENCE
TOTAL CYANIDE	0.005	I <b>N</b> C	ORGANICS ND	11-02-99	SW 9010
		M	<b>IETALS</b>		
HEXAVALENT CHROMIUN CADMIUM CHROMIUM LEAD MANGANESE NICKEL ZINC MERCURY	0.005 0.005 0.005 0.002 0.005 0.005 0.010 0.0002	mg/L mg/L mg/L mg/L mg/L mg/L mg/L	ND ND ND ND ND ND ND	10-29-99 11-09-99 11-02-99 11-02-99 11-02-99 11-02-99 11-11-99	SW 7196 SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 6010 SW 7470

REPORT: 2813001MT(717

5000 CEDAR PLAZA PARKWAY, SUITE 211

DATE: 11-12-99

ST. LOUIS, MO 63128 ATTN: WILLIAM E. WRIGHT

REVISED DATE: 02-01-00

#### QA/QC

DESCRIPTION		PARAMETER	RESULTS
METHOD BLANK	11-02-99 10-29-99 11-09-99 11-02-99 11-02-99 11-02-99 11-02-99 11-11-99	TOTAL CYANIDE HEXAVALENT CHROMIUM CADMIUM CHROMIUM LEAD MANGANESE NICKEL ZINC MERCURY	<0.005 mg/L <0.005 mg/L <0.005 mg/L <0.005 mg/L <0.002 mg/L <0.005 mg/L <0.005 mg/L <0.005 mg/L <0.005 mg/L <0.000 mg/L
CONTROL SPIKE	11-02-99 10-29-99 11-09-99 11-02-99 11-02-99 11-02-99 11-02-99	TOTAL CYANIDE HEXAVALENT CHROMIUM CADMIUM CHROMIUM LEAD MANGANESE NICKEL ZINC MERCURY	92 % RECOVERY 104 % RECOVERY 98 % RECOVERY 101 % RECOVERY 104 % RECOVERY 106 % RECOVERY 107 % RECOVERY 105 % RECOVERY 102 % RECOVERY

# O'Brien & Gere Laboratories, Inc.

# Analytical Results Trace Metals

Client: O'Brien & Gere Engineers, Inc.

Project: Inland Realty Co. Proj. Desc: Maryville, Missouri Job No.: 3435.016.015

Certification NY No.: 10155R

Sample: N4084

Samp. Description: GMW #3DA

Units: mg/L

Collected: 10/28/99

Matrix: Water

Received: 10/29/99 % Solids:

 Parameter
 Result
 Method
 Prepared
 Analyzed
 QC Batch
 Dilut.
 Note

 Lead
 <.002</td>
 200.7
 11/01/99
 11/02/99
 110199W1
 1

Note	To: Bill Wigh	<i></i> ∤
	Co:Job, #:	
	Pages: 3 From: Novik	S Olas Jus.
	OBG   ARS (715) (77 0200 (4)	7554 5

J-estimated value

Monika Santucci

#### O'BRIEN & GERE ENGINEERS, INC.

Office: St Louis MO

Address: 5000 Cedar Plaza Parkway

ne: (314) 842-4550

Job No. 3050.W Sheet 4 of

CHAIN OF CUSTODY

Client: INLAND REALTY CO Location: MARYVILLE, MISSOURI			Collected By: (Signature)			3 435.016.015	
SAMPLE DESCRIPTION	Date	Time	Sample Matrix <sup>1</sup>	Sample Type <sup>1</sup>	No. of Containers	ANALYSIS REQUESTED	
GMW #4D			Water	Gnab	1-P, 500 mL	Cyanide (CN)	
GMW #4D		,	Water	Gnb	1-P, 500 mL	Total lead (Pb) and zinc (Zn)	
GMW #4D			Water	Gnab	1-P, 500 mL	Hexavalent chromium (Cr <sup>vi</sup> )	
GMW #4D			· Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, mercury (Hg), manganese (Mn), Nickel (Ni)	
GMW ISDA	10/28/99	16,10	Water	Grab	1-P, 500 mL	CN	
GMW ISDA	10/28/99	11010	Water	Grab	1-P, 500 mL	Total Po and Zn	
GMW ISDA	1928/99	1100	Water	Grab	1-P, 500 mL	Cr <sup>vi</sup>	
GMW /3DA	10/28/99	160	Water	Gnab	1-P, 1 L	Total Metals-Cd, Cr, Hg, Mn, Ni	
GMW #10			Water	Grab	1-P, 500 mL	CN	
GMW #10			Water	Grab	1-P, 500 mL	Total Pb and Zn	
GMW #10			Water	Gnab	1-P, 500 mL	Ct <sub>Al</sub>	
MW /10			Water	Grab	1-P, 1 L	Total Metals-Cd, Cr, Hg, Mn, Ni	

'Matrix = water, wastewater, air, sludge, sediment, etc. 'Type = grab, composite			Cyanide - NaOH to pH 12					
Containers = P - polyethylene; G - glass	اعتنا	GMW:	#30A was the only site rece	wed	22/			
Relinquished by:	Date	Time	Received by:-	Date	Tir⊤e			
of:			of:					
Relinquished by:	Date	Time	Received by:	Date	T			
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Relinquished by:	Date	Time	Received by:	Date	Ti			
of:			of:					
Use this space if shipped via courier (e.g., Fed Ex)	Date Date	. Time 1945	Courier Astone Experies	Date	Time			
Bringwicker - Which -	199	111)						
* OBrien Sere			*Attach delivery/courier receipt to Chain of Custody					
Relinquished by:	Date	Time	by: Mals Flackson	Date	Time			
of:			of OBUEN + Orde LAMS	idzahri	11: -5			

File: 3050.00:

# O'Brien & Gere Laboratories, Inc.

Client: O'Brien & Gere Engineers, Inc.

Project: Inland Realty Co.

Proj. Desc: Maryville, Missouri

Sample: N4084

Samp. Description: GMW #3DA

Units: mg/L

# **Analytical Results Trace Metals**

Job No.: 3435.016.015

Certification NY No.: 10155R

Collected: 10/28/99

Matrix: Water

Received: 10/29/99

%Solids:

Number of analytes: 6

Parameter	Result	Method	Prepared	Analyzed	QC Batch	Dilut. Note
Cadmium	<.005	200.7	11/01/99	11/02/99	110199W1	1
Chromium	.006	200.7	11/01/99	11/02/99	110199W1	1
Manganese	.60	200.7	11/01/99	11/02/99	110199W1	1
Mercury	<.0002	245.1	11/11/99	11/11/99	111199W1	1
Nickel	<.005	200.7	11/01/99	11/02/99	110199W1	1
Zinc	.03	200.7	11/01/99	11/02/99	110199W1	1

Notes:

J-Estimated value

Authorized: November 12,1999 Monika Santucci

#### O'Brien & Gere Laboratories, Inc.

**Analytical Results** Wet Chemistry

Client: O'Brien & Gere Engineers, Inc.

Project: Inland Realty Co.

Proj. Desc: Maryville, Missouri

Job No.: 3435.016.015

Certification NY No.: 10155R

Sample: N4084

Samp. Description: GMW #3DA

Collected: 10/28/99 16:10

Matrix: Water

Received: 10/29/99 11:45

Parameter	Result Qual	MDL	RL Units	Method	Prepared Analyzed	QC Batch Note
Chromium-Hexavalent	<.01 U		mg/L	7196A	10/29/99	102999W13
Total cyanide	<.005 U		mg/L	EPA 335.2	11/04/99 11/05/99	110499W23

Notes:

U-Undetected at reported level. J-reported value is estimated.

Authorized: / Von La Santucci

Date: November 6,1999 Monika Santucci

5000 Brittonfield Parkway / Suite 300, Box 4942 / Syracuse, NY 13221 / (315) 437-0200

O'BRIEN & GERE ENGINEERS, INC.

Office: St. Louis, MO

Address: 5000 Cedar Plaza Parkway

Phone: <u>(314)</u> 842-4550

Job No. 3050.005 Sheet 4 of CHAIN OF CUSTODY

Client: INLAND REALTY CO Collected By: 3 435.016.015 (Signature) Location: MARYVILLE, MISSOURI Sample No. of Sample ANALYSIS REQUESTED Matrix1 Type<sup>3</sup> Containers' SAMPLE DESCRIPTION Date Time Grab 1-P, 500 mL Cyanide (CN) Water GMW #4D Total lead (Pb) and zinc (Zn) Grab 1-P, 500 mL Water **GMW #4D** Hexavalent chromium (CrVI) Grab 1-P, 500 mL Water **GMW #4D** 1-P, 1 L Total Metals-Cd, Cr, mercury (Hg), Grab **GMW #4D** Water manganese (Mn), Nickel (Ni) 1-P, 500 mL Water Grab GMW #3DA 1-P, 500 mL Total Pb and Zn Water Grab GMW #3DA Water Grab 1-P, 500 mL GMW #3DA Water Grab 1-P, 1 L Total Metals-Cd, Cr, Hg, Mn, Ni GMW #3DA GMW #10 Water Grab 1-P, 500 mL CN GMW #10 Water Grab 1-P, 500 mL Total Pb and Zn Crvi GMW #10 1-P, 500 mL Water Grab GMW #10 Water Grab 1-P, 1 L Total Metals-Cd, Cr, Hg, Mn, Ni

<sup>1</sup>Matrix = water, wastewater, air, sludge, sediment, etc.

Maximum Method Detection Limits: CN, Cd, Cr, Mn, Ni - 5 ppb; Pb - 2 ppb; Hg - 0.2 ppb; Zn - 10 ppb

Chemical Preservatives:

Metals - HNO, to pH 2 Cyanide - NaOH to pH 12

<sup>2</sup>Type = grab, composite

<sup>3</sup>Containers = P - polyethylene; G - glass

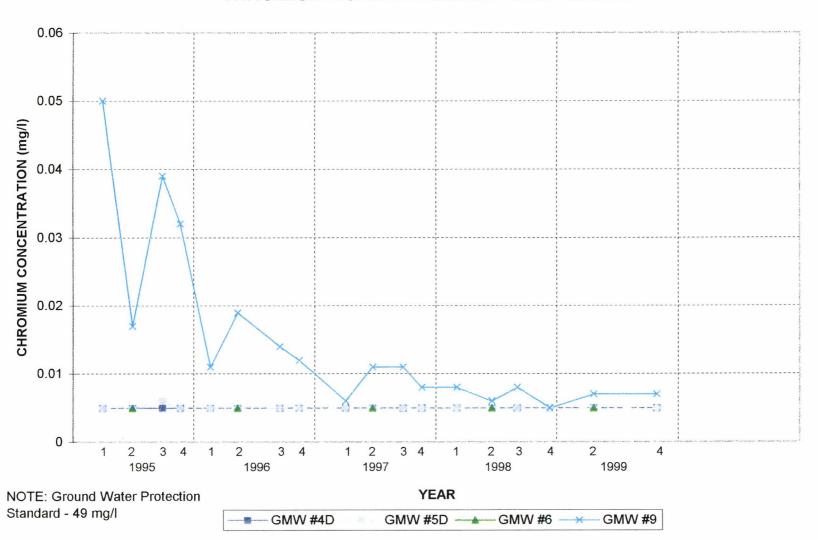
was the only site received not GMULHRADA

Relinquished by:	Date	Time	Received by:-	Date	Time
of:			of:		
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		
Relinquished by:	Date	Time	Received by:	Date	Time
of:			of:		<u> </u>
Use this space if shipped via courier (e.g., Fed Ex) Relinquished by:	Date 1905/49	Time 1945	Courier Antone Expess	Date	Тіве
or OBrien Vere			*Attach delivery/courier receipt to Chain of Custody		
Relinquished by:	Date	Time	Received by: Mart Cackson	Date	Time
of:			of: OBrien + oure LMS	10/20/29	11:4

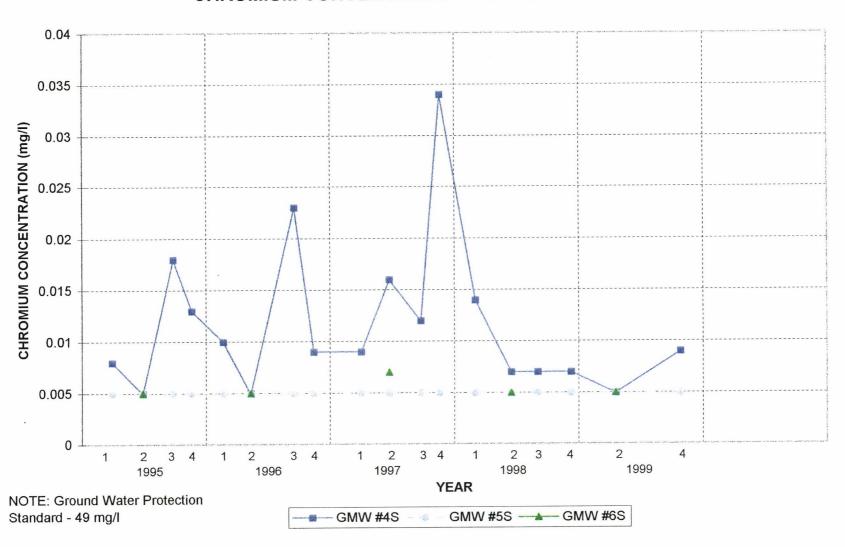
Appendix C

Concentration trend graphs – 1995 -1999

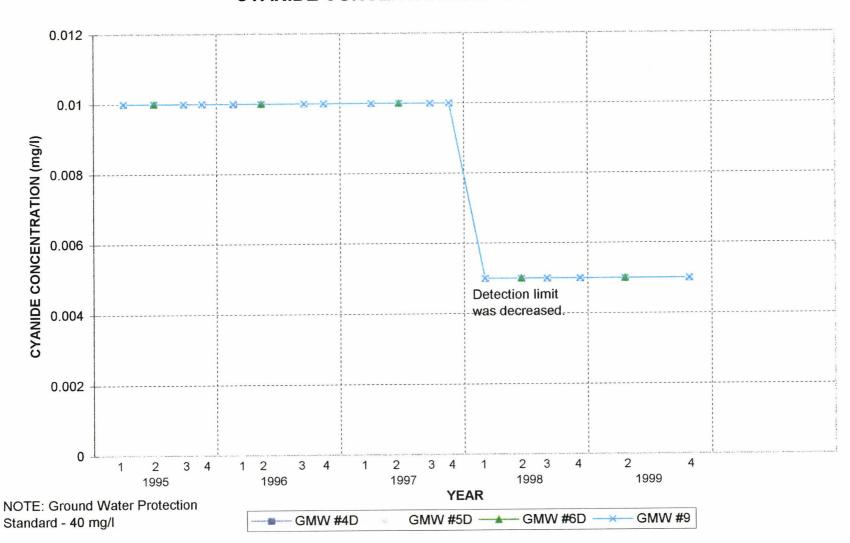
**CHROMIUM CONCENTRATION - DEEP WELLS** 



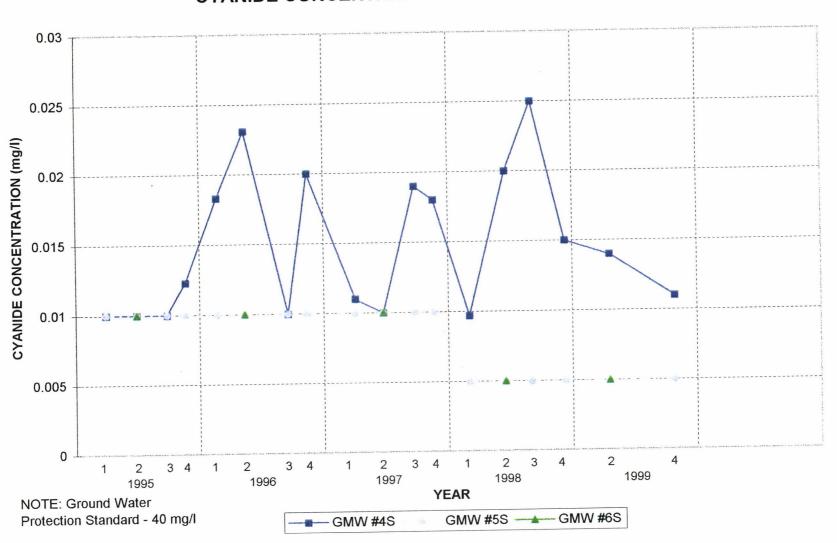
**CHROMIUM CONCENTRATION - SHALLOW WELLS** 



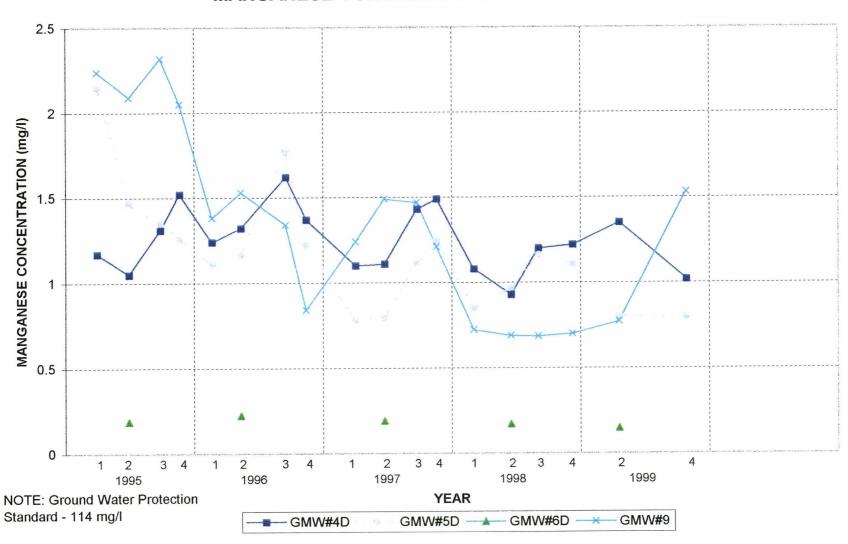
**CYANIDE CONCENTRATION - DEEP WELLS** 



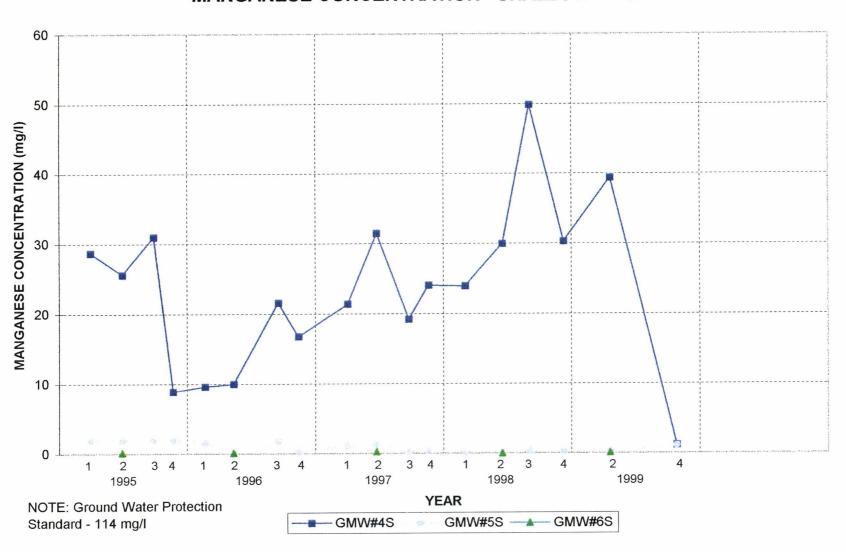
**CYANIDE CONCENTRATION - SHALLOW WELLS** 



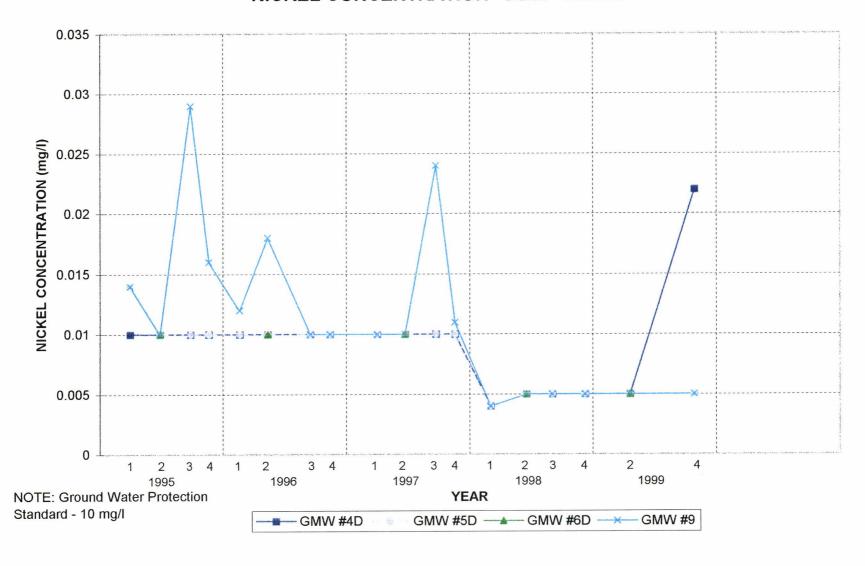
**MANGANESE CONCENTRATION - DEEP WELLS** 



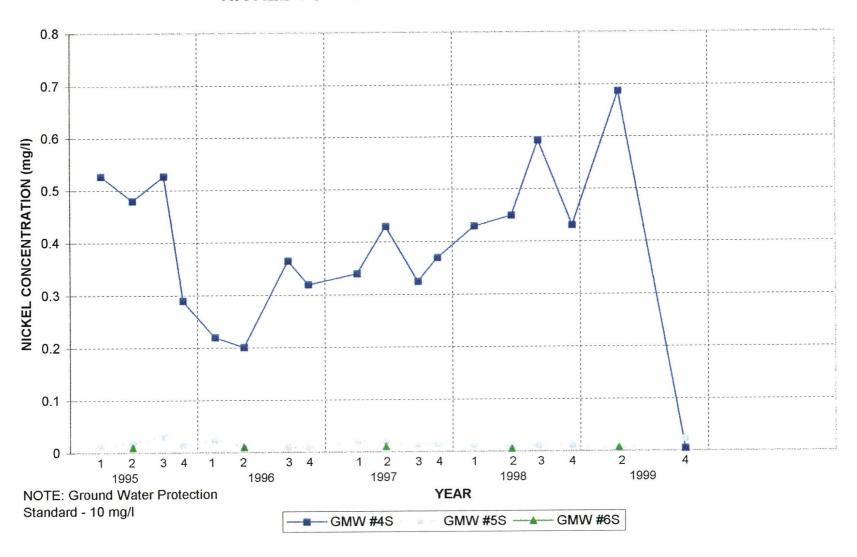
**MANGANESE CONCENTRATION - SHALLOW WELLS** 



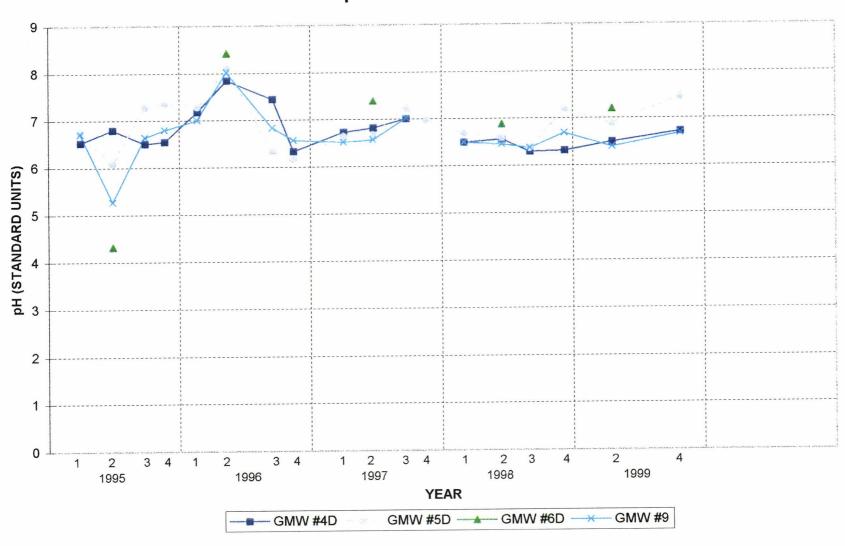
**NICKEL CONCENTRATION - DEEP WELLS** 



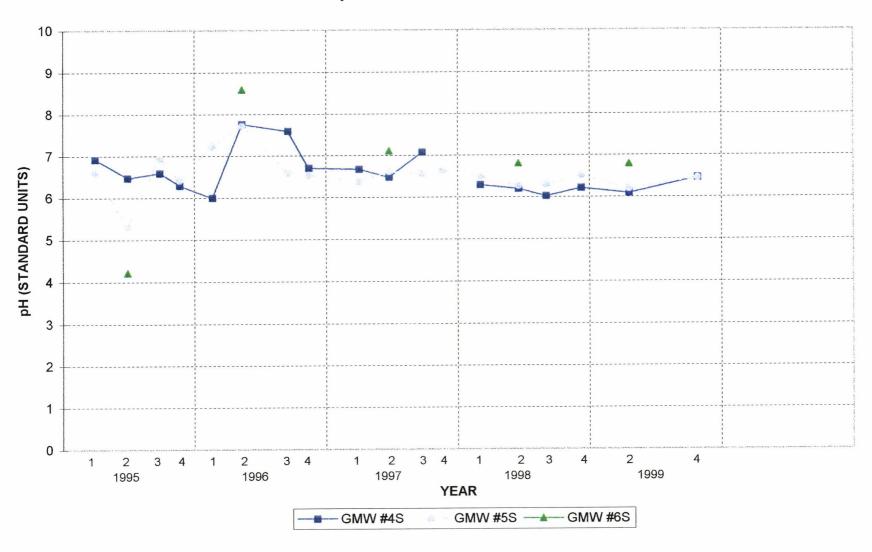
**NICKEL CONCENTRATION - SHALLOW WELLS** 



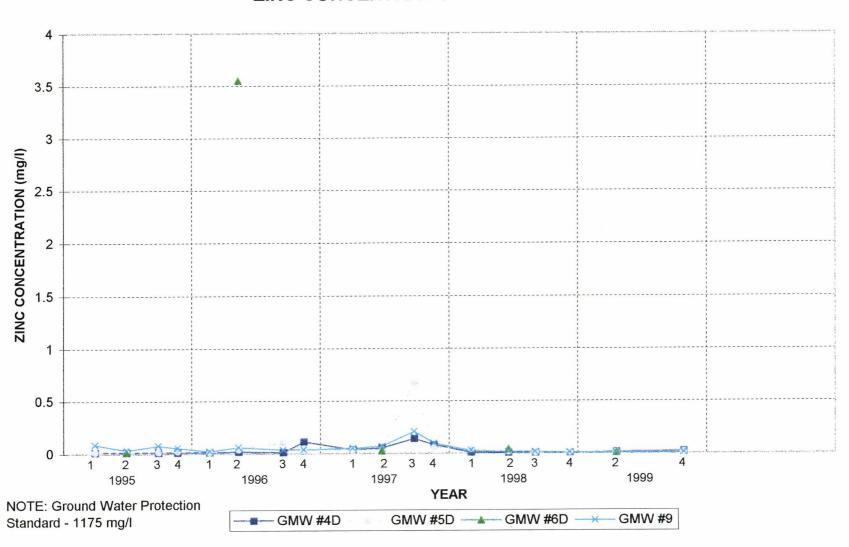
pH - DEEP WELLS



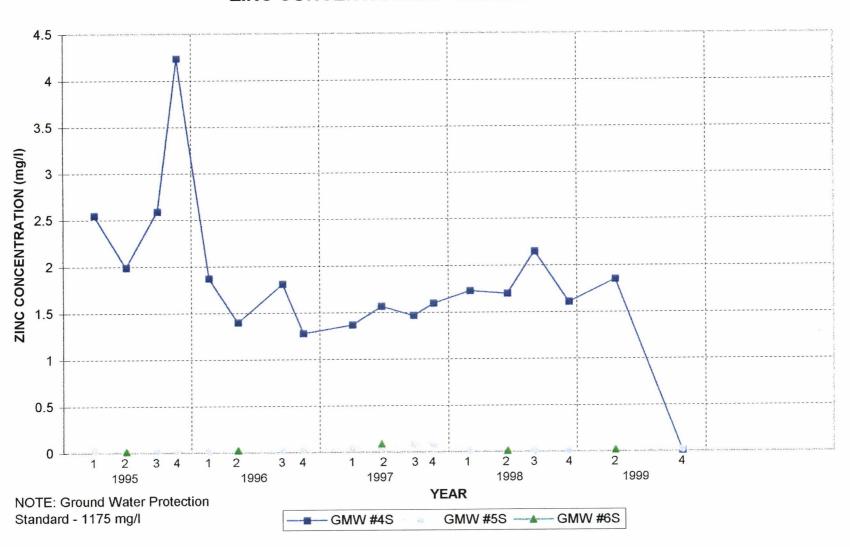
pH - SHALLOW WELLS



**ZINC CONCENTRATION - DEEP WELLS** 



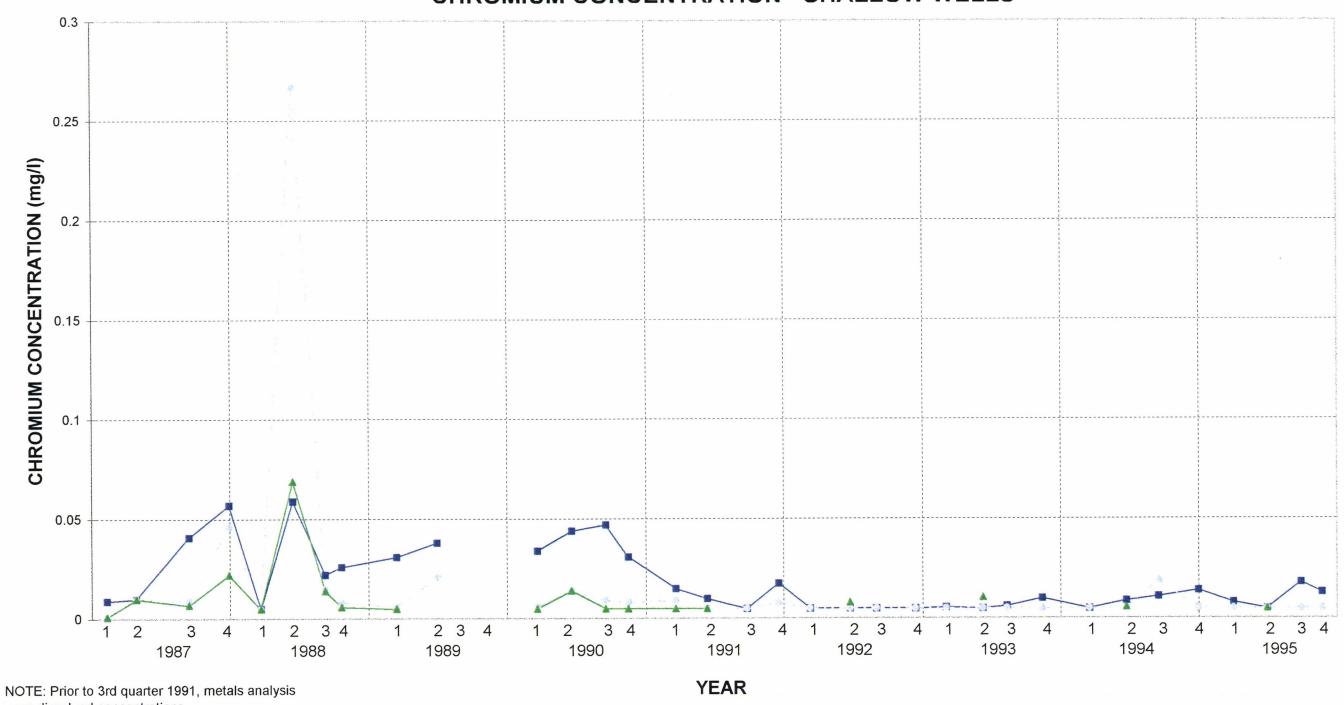
**ZINC CONCENTRATION - SHALLOW WELLS** 



Appendix D

Concentration trend graphs – 1987-1995

**CHROMIUM CONCENTRATION - SHALLOW WELLS** 



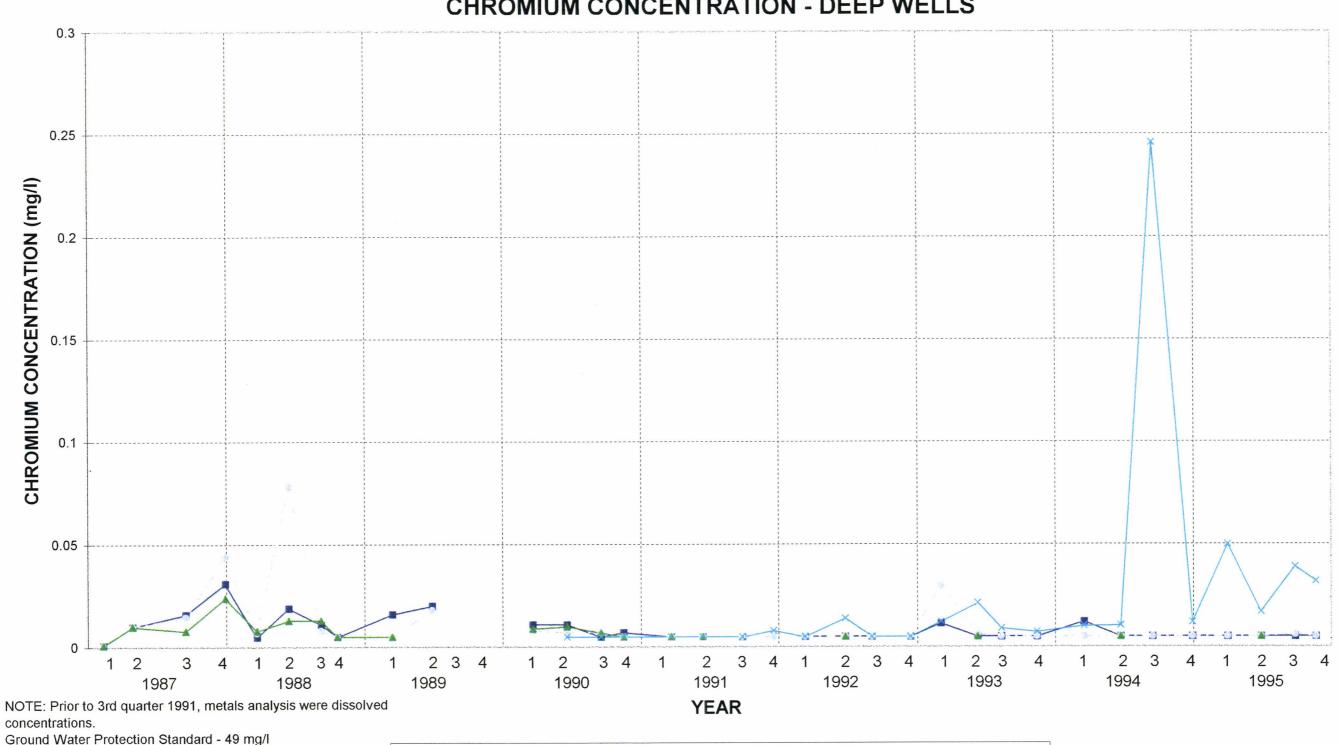
NOTE: Prior to 3rd quarter 1991, metals analysis were dissolved concentrations.

Ground Water Protection Standard - 49 mg/l

--- GMW #4S

GMW #5S → GMW #6S

**CHROMIUM CONCENTRATION - DEEP WELLS** 

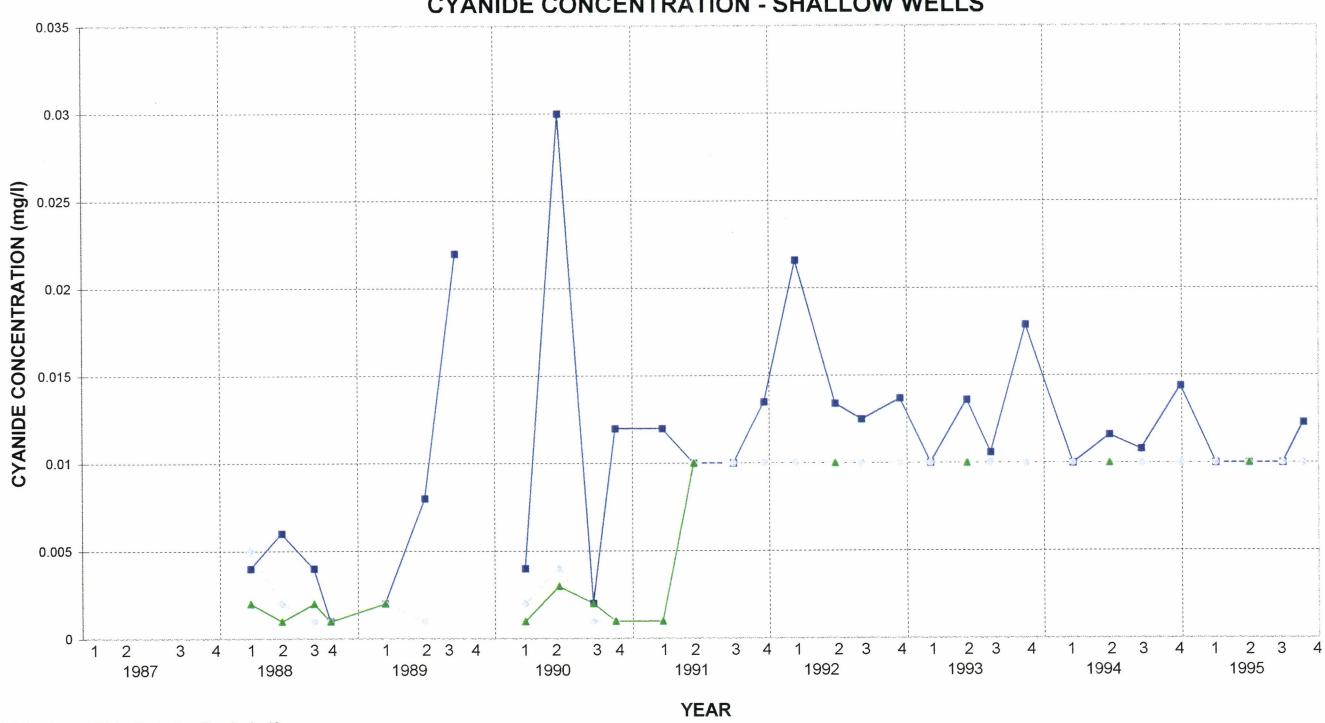


GMW #5D → GMW #6D →

GMW #9

--- GMW #4D

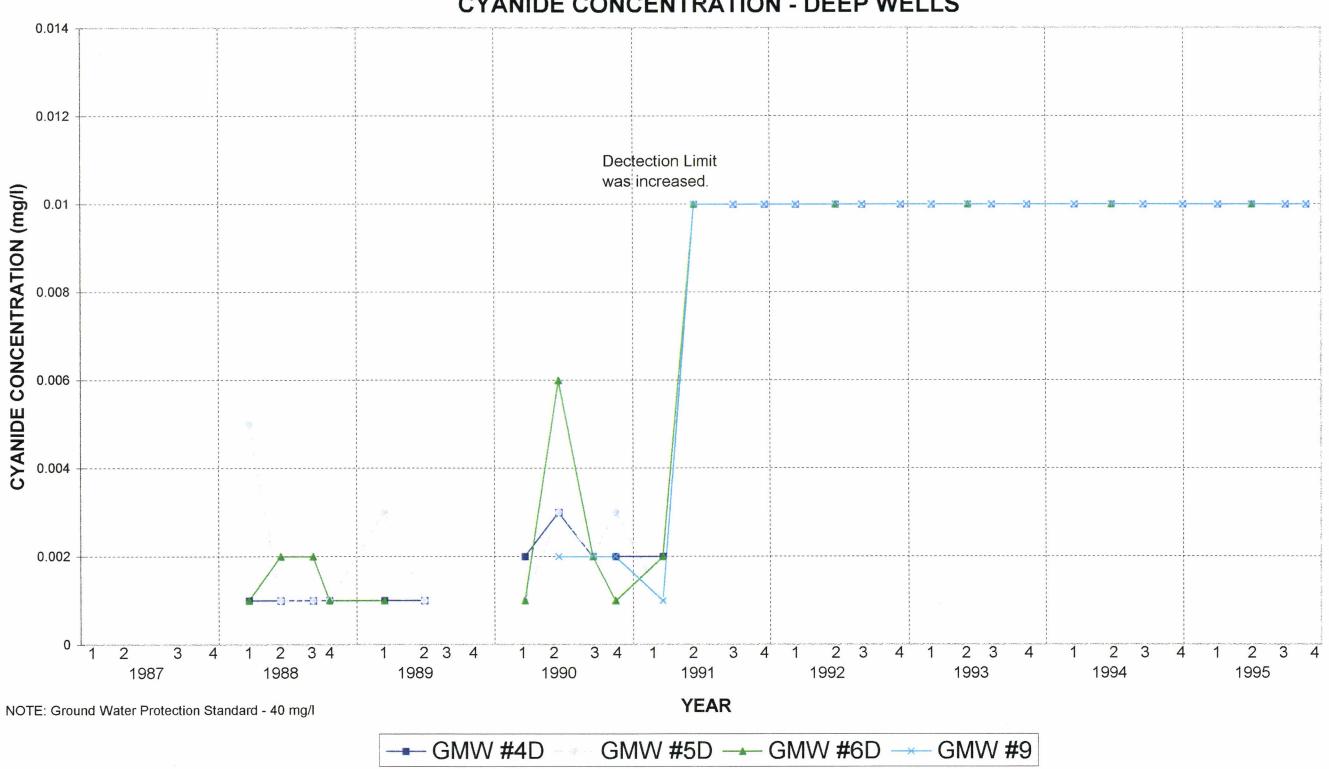
**CYANIDE CONCENTRATION - SHALLOW WELLS** 



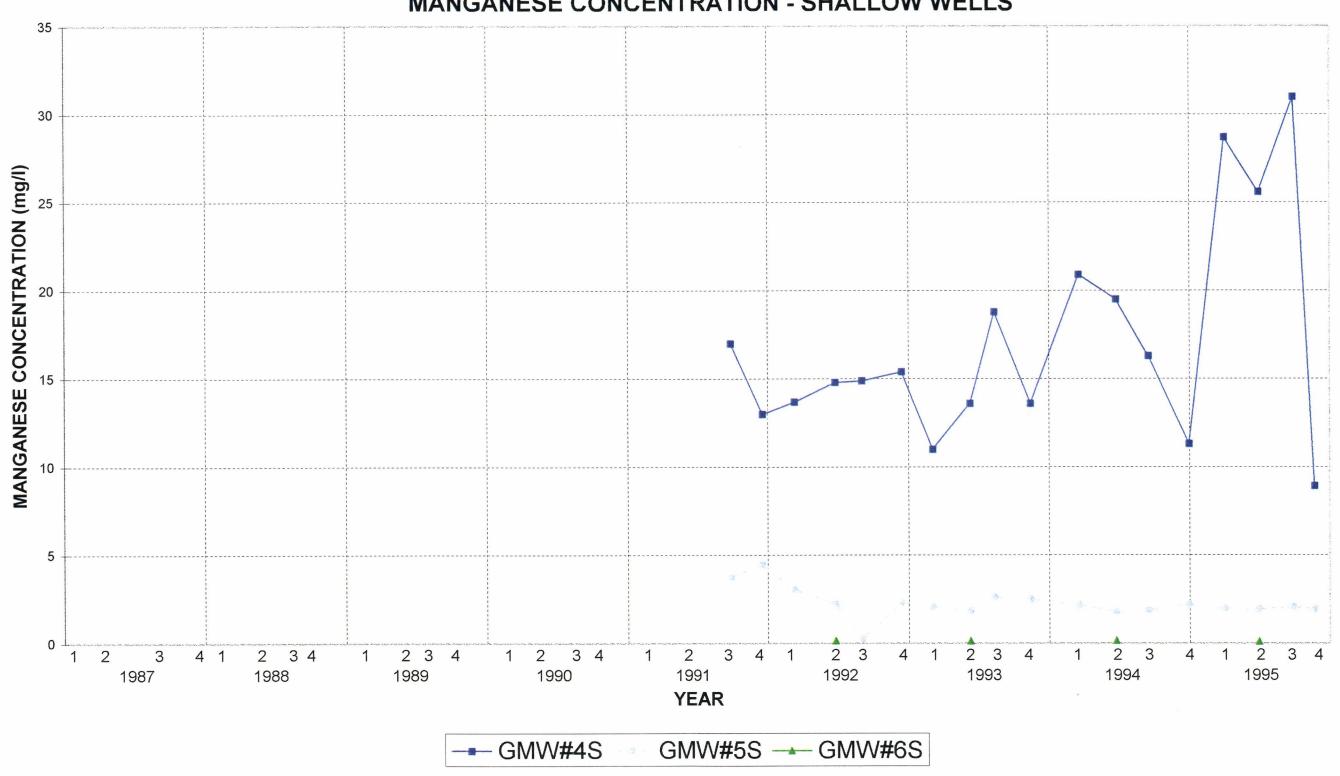
NOTE: Ground Water Protection Standard - 40

GMW #5S --- GMW #6S --- GMW #4S

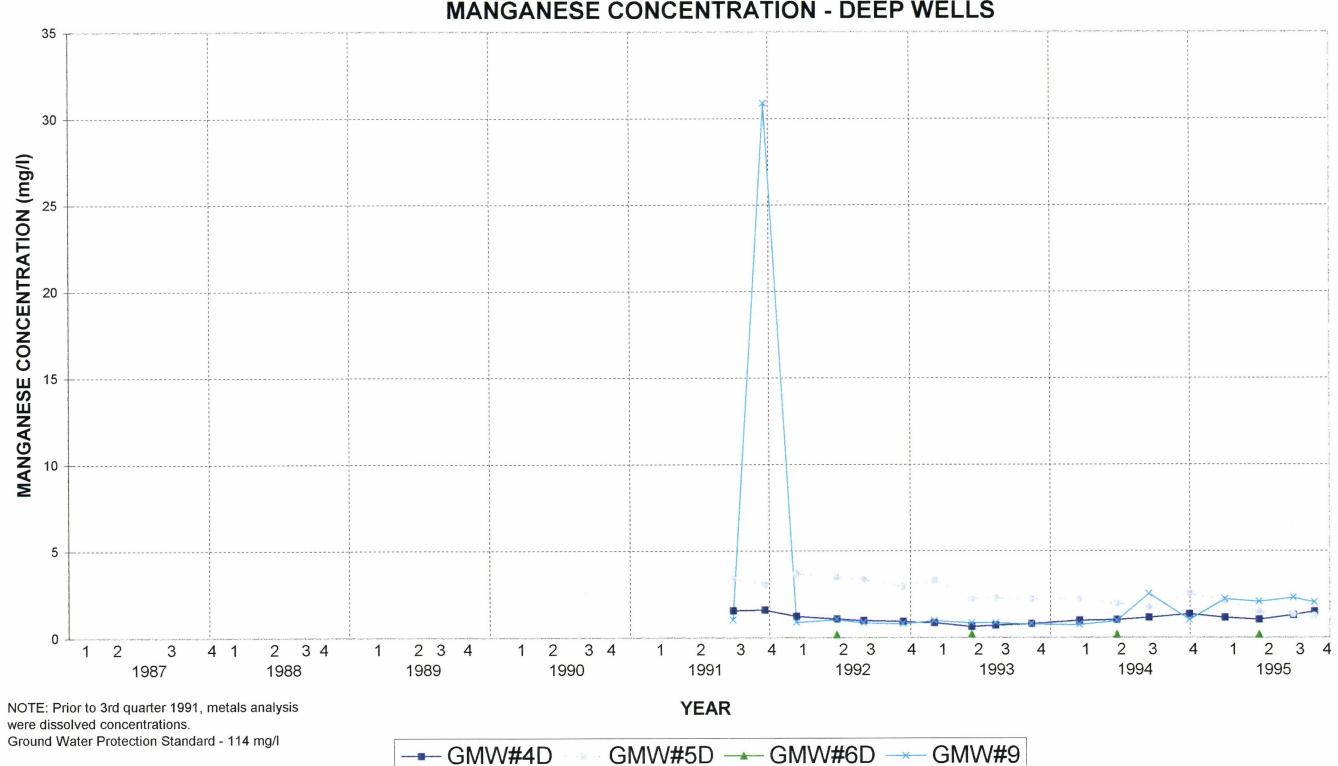
**CYANIDE CONCENTRATION - DEEP WELLS** 



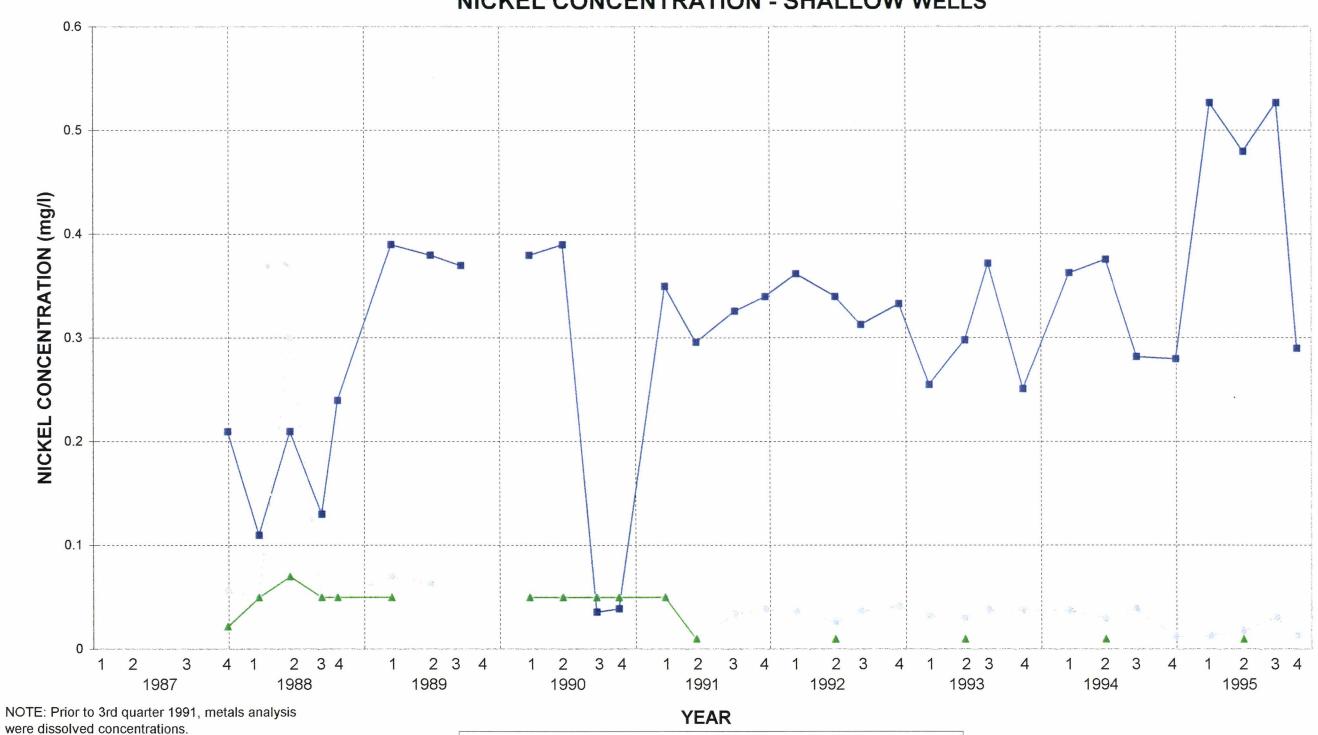
**MANGANESE CONCENTRATION - SHALLOW WELLS** 







**NICKEL CONCENTRATION - SHALLOW WELLS** 

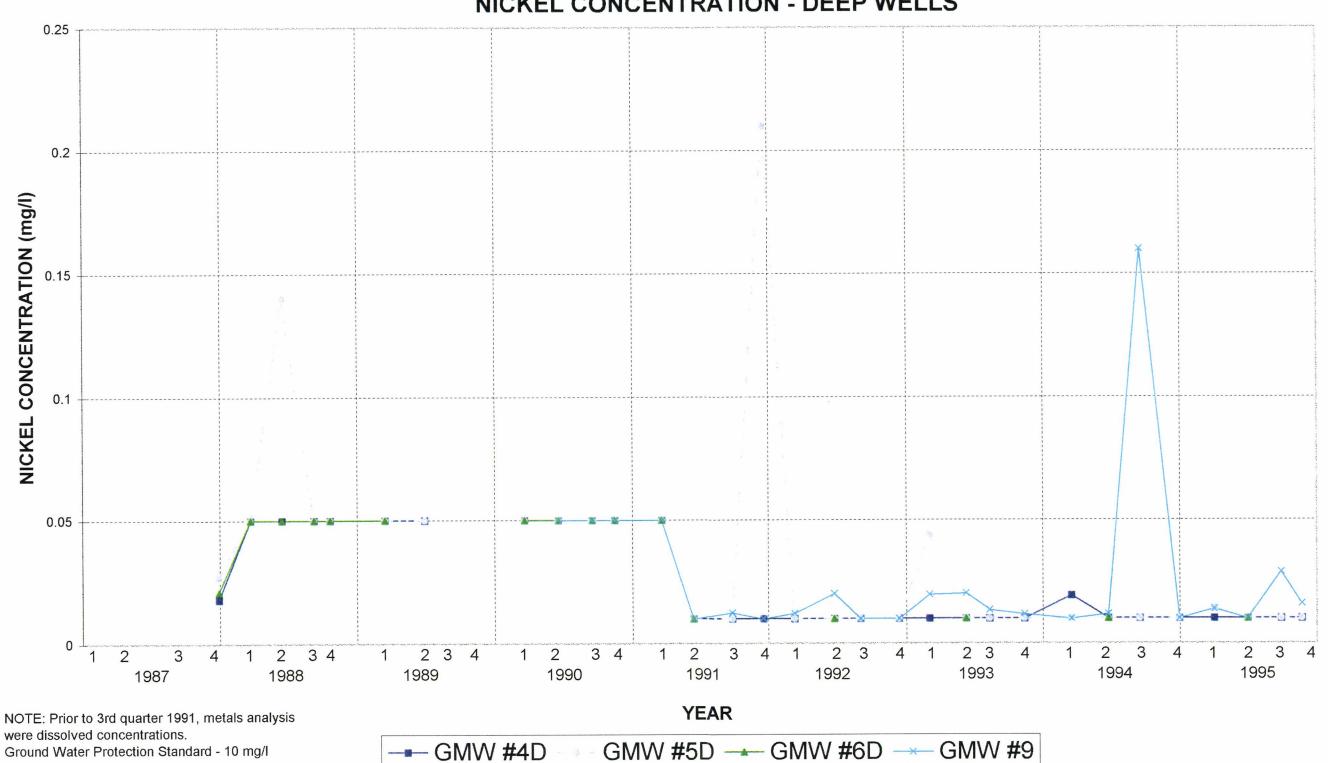


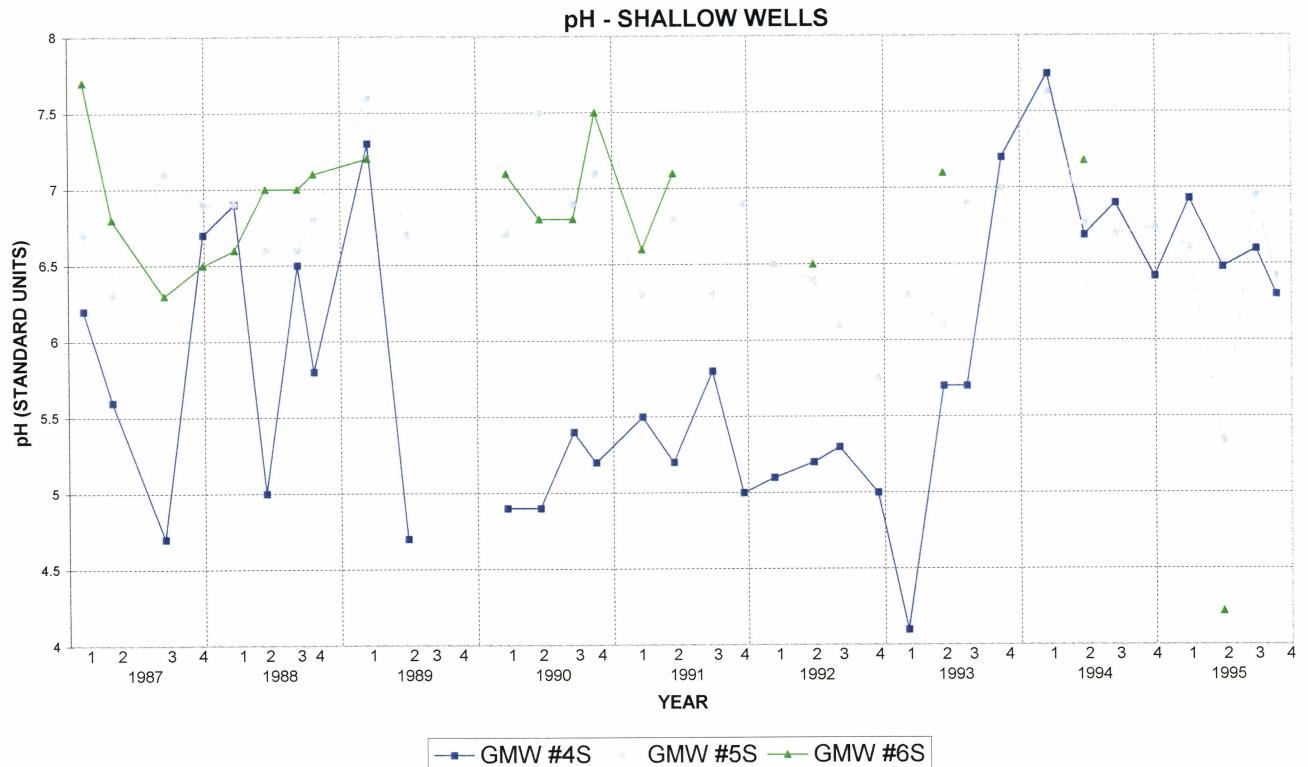
--- GMW #4S

Ground Water Protection Standard - 10 mg/l

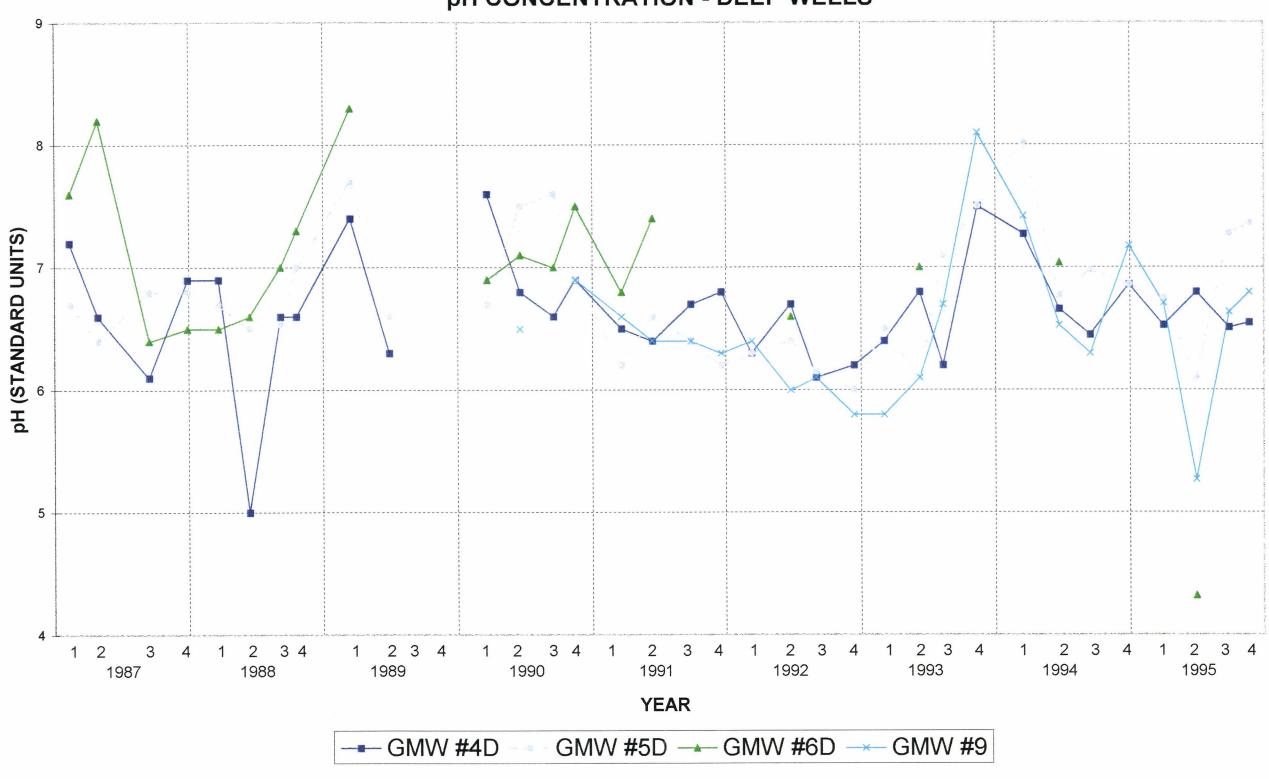
GMW #5S --- GMW #6S

# INLAND REALTY - MARYVILLE, MISSOURI NICKEL CONCENTRATION - DEEP WELLS

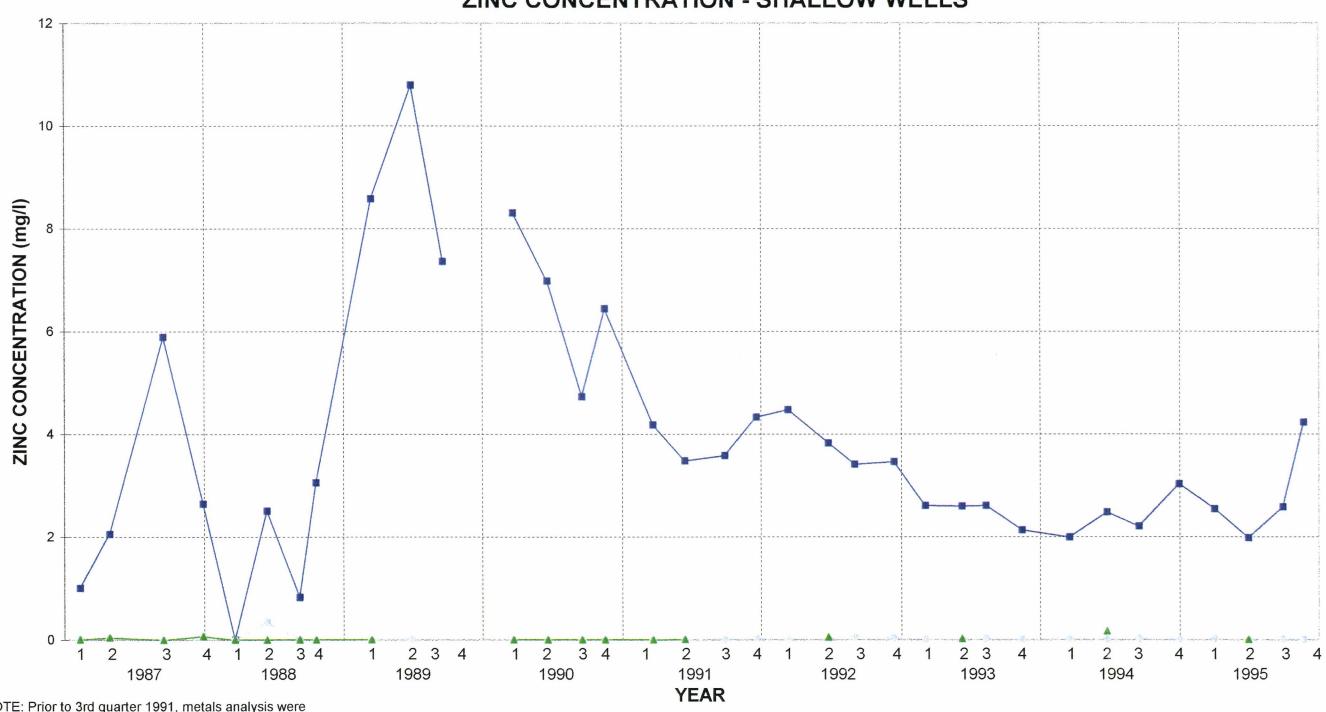




**pH CONCENTRATION - DEEP WELLS** 



**ZINC CONCENTRATION - SHALLOW WELLS** 



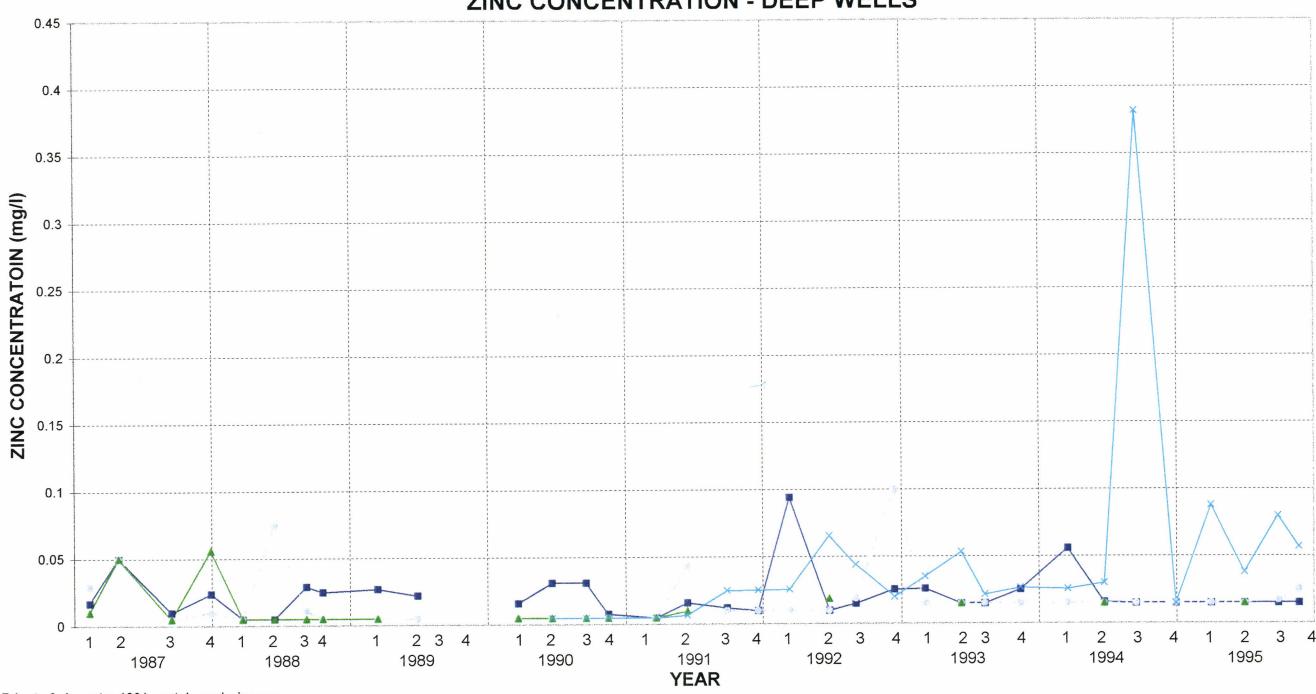
NOTE: Prior to 3rd quarter 1991, metals analysis were dissolved concentrations.

Ground Water Protection Standard - 1175 mg/l

--- GMW #4S

GMW #5S --- GMW #6S





NOTE: Prior to 3rd quarter 1991, metals analysis were dissolved concentrations.

Ground Water Protection Standard - 1175 mg/l

--- GMW #4D → GMW #5D --- GMW #6D --- GMW #9